



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

IN REPLY REFER TO:

1-1-01-SP-2173

May 24, 2001

Mr. David Munro
Ecologist
Tetra Tech, Inc.
180 Howard Street, Suite 250
San Francisco, California 94015

Subject: Species List for Restoration Project at Bolinas Lagoon, Marin County,
California

Dear Mr. Munro:

We are sending the enclosed list in response to your May 23, 2001, request for information about endangered and threatened species (Enclosure A). The list covers the following U.S. Geological Survey 7½ minute quad or quads: Bolinas Quad.

Please read *Important Information About Your Species List* (enclosed). It explains how we made the list and describes your responsibilities under the Endangered Species Act. Please contact Harry Mossman, Biological Technician, at (916) 414-6674, if you have any questions about the attached list or your responsibilities under the Endangered Species Act. For the fastest response to species list requests, address them to the attention of Mr. Mossman at this address. You may fax requests to him at 414-6712 or 6713.

Sincerely,

Jan C. Knight
Chief, Endangered Species Division

Enclosures



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404

September 20, 2001

In Response Refer To:
F/SWR3:JTJ

RECEIVED

SEP 21 2001

TETRA TECH
San Francisco

Jeanette Weisman, Biologist
Tetra Tech, Incorporated
180 Howard Street, Suite 250
San Francisco, California 94105

Dear Ms Weisman:

This is in response to your letter dated August 17, 2001, regarding the presence of Federally listed threatened or endangered species or critical habitat that may be affected by the County of Marin's proposed ecosystem restoration of the Bolinas Lagoon in Marin County, California. As stated in your letter, the U.S. Army Corps of Engineers will be the lead agency.

Available information indicates that the following listed species (Evolutionarily Significant Units) may occur in the project area:

Central California Coast coho salmon (*Oncorhynchus kisutch*)

Threatened (October 31, 1996, 64 FR 56138)

Central California Coast steelhead (*Oncorhynchus mykiss*)

Threatened (August 18, 1997, 62 FR 43937)

The project site is located within the designated critical habitat for Central California Coast coho salmon (64 FR 24049) and Central California Coast steelhead (65 FR 7764).

The project site is also located within an area identified as Essential Fish Habitat (EFH) for various life stages of fish species managed with the following Fishery Management Plans (FMP) under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA):

Pacific Groundfish FMP - (e.g., English sole, brown rockfish, starry flounder, leopard shark, etc.)

Coastal Pelagics FMP - (e.g., northern anchovy, Pacific sardine)

Pacific Coast Salmon FMP - (coho salmon)

As this project may affect species listed under the Endangered Species Act (ESA), as well as EFH under the MSFCMA, I recommend the U.S. Army Corps of Engineers initiate consultation with NMFS pursuant to Section 7 of the ESA and to Section 305(b)(2) of the MSFCMA to



address the potential effects of this project. To initiate EFH consultation, please provide an EFH Assessment with the Section 7 initiation package. For more information on EFH, see our website at "<http://swr.nmfs.noaa.gov>".

The U.S. Fish and Wildlife (USFWS) may also have listed species or critical habitat under its jurisdiction in the project area. Please also contact the USFWS regarding the presence of listed species or critical habitat under USFWS jurisdiction that might be affected by your project.

If you have questions concerning ESA issues, please contact Mr. Jeffrey Jahn at (707) 575-6097. If you have questions concerning EFH issues, please contact Mr. Brian Mulvey at (707) 575-6056.

Sincerely,

A handwritten signature in black ink, appearing to read "Dick Butler", with a stylized flourish extending from the end.

Dick Butler
North Coast Team Leader
Protected Resources Division

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

RANA BOYLI

FOOTHILL YELLOW-LEGGED FROG
Element Code: AAABH01050

—List Status—
Federal: None
State: None

—NDDB Element Ranks—
Global: G3
State: S2S3

—Other Lists—
CDFG Status: SC

—Habitat Associations—

General: PARTLY-SHADED, SHALLOW STREAMS & RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro: NEED AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEED AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Occurrence No. 120 Map Index:32349 —Dates Last Seen— Lat/Long: 38°00'03" / 122°42'26" Township: 99X
Occ Rank: Unknown Element: 1956-04-XX UTM: Zone-10 N4205727 E525705 Range: 99X
Origin: Natural/Native occurrence Site: 1956-04-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 43.3 ac Elevation: 200 ft
Main Source: GERSTUNG, E. 1993 (PERS)
Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: LAGUNITAS CREEK BELOW PETERS DAM.
—Comments—
Distribution:
Ecological: RIVER.
Threat:
General: MODERATELY ABUNDANT NUMBERS OF FROGS OBSERVED IN MARCH AND APRIL 1956.
Owner/Manager: UNKNOWN

Occurrence No. 121 Map Index:32350 —Dates Last Seen— Lat/Long: 37°55'21" / 122°37'34" Township: 99X
Occ Rank: Unknown Element: 1956-04-XX UTM: Zone-10 N4197089 E532873 Range: 99X
Origin: Natural/Native occurrence Site: 1956-04-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 154.8 ac Elevation: 1600 ft
Main Source: GERSTUNG, E. 1993 (PERS)
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
County Summary: MARIN
SNA Summary:
Location: CATARACT CREEK TO ALPINE LAKE AT LAUREL DELL.
—Comments—
Distribution:
Ecological: CREEK.
Threat:
General: MODERATELY ABUNDANT NUMBERS OF FROGS OBSERVED IN MARCH AND APRIL 1956.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARDEA HERODIAS

GREAT BLUE HERON

Element Code: ABNGA04010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G5

State: S4

—Other Lists—

CDFG Status:

—Habitat Associations—

General: (ROOKERY) COLONIAL NESTER IN TALL TREES, CLIFFSIDES, AND SEQUESTERED SPOTS ON MARSHES.

Micro: ROOKERY SITES IN CLOSE PROXIMITY TO FORAGING AREAS: MARSHES, LAKE MARGINS, TIDE-FLATS, RIVERS AND STREAMS, WET MEADOWS.

Occurrence No. 25 Map Index: 08266

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Increasing

Main Source: PRATT, H. 1983 (LIT)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary: Bolinas Lagoon

Location: AUDUBON CANYON RANCH, ON E SIDE OF HWY 1, APPROX 3 MI NW OF STINSON BEACH.

—Comments—

Distribution: ROOKERY SITE IS LOCATED IN COAST REDWOODS.

Ecological:

Threat:

General: BOTH GREAT BLUE HERONS AND GREAT HERONS NEST HERE. ROOKERY WAS WELL-ESTABLISHED AND ACTIVE IN 1941; POPULATION HAS BEEN MONITORED SINCE 1967. NUMBERS REMAINED STABLE BETWEEN 1967 AND 1973; DECLINED FROM 58 PAIRS IN 1973 TO 27 PAIRS IN 1981.

Owner/Manager: AUDUBON-AUDUBON CANYON RANCH

—Dates Last Seen—

Element: 1982-XX-XX

Site: 1982-XX-XX

Lat/Long: 37°55'52" / 122°40'47"

UTM: Zone-10 N4198014 E528146

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1/5 mile

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 100 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARDEA ALBA

GREAT EGRET

Element Code: ABNGA05010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G5

State: S4

—Other Lists—

CDFG Status:

—Habitat Associations—

General: (ROOKERY) COLONIAL NESTER IN LARGE TREES.

Micro: ROOKERY SITES LOCATED NEAR MARSHES, TIDE-FLATS, IRRIGATED PASTURES, AND MARGINS OF RIVERS AND LAKES.

Occurrence No. 14 Map Index:08266

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Increasing

Main Source: PRATT, H. 1983 (LIT)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary: Bolinas Lagoon

Location: AUDUBON CANYON RANCH, ON EAST SIDE OF HWY 1, APPROX 3 MILES NW OF STINSON BEACH.

—Comments—

Distribution: COLONY IS LOCATED IN COAST REDWOODS.

Ecological:

Threat:

General: COLONY WAS WELL-ESTABLISHED AND ACTIVE IN 1941. BOTH GREAT EGRETS AND GREAT BLUE HERONS NEST AT THIS LOCATION; THE POPULATION HAS BEEN MONITORED SINCE 1967. THE NESTING POPULATION INCREASED FROM 70 TO 148 PAIRS BETWEEN 1967 AND 1981.

Owner/Manager: AUDUBON-AUDUBON CANYON RANCH

—Dates Last Seen—

Element: 1982-XX-XX

Site: 1982-XX-XX

Lat/Long: 37°55'52" / 122°40'47"

UTM: Zone-10 N4198014 E528146

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1/5 mile

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 100 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

LATERALLUS JAMAICENSIS COTURNICULUS

CALIFORNIA BLACK RAIL

Element Code: ABNME03041

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G4T1	CDFG Status:
State: Threatened	State: S1	

Habitat Associations

General: MAINLY INHABITS SALT-MARSHES BORDERING LARGER BAYS.

Micro: OCCURS IN TIDAL SALT MARSH HEAVILY GROWN TO PICKLEWEED; ALSO IN FRESH-WATER AND BRACKISH MARSHES, ALL AT LOW ELEVATION.

Occurrence No. 80	Map Index:08263	—Dates Last Seen—	Lat/Long: 37°55'45" / 122°40'57"	Township: 99X
Occ Rank: Unknown		Element: 1986-06-12	UTM: Zone-10 N4197797 E527903	Range: 99X
Origin: Natural/Native occurrence		Site: 1986-06-12	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation:
Main Source: EVENS, J. ET AL 1986 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: COVE IN BOLINAS LAGOON AT MOUTH OF AUDUBON CANYON.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: ONE RAIL RESPONDED TO A TAPED CALL DURING 1986 STUDY.				
Owner/Manager: UNKNOWN				

Occurrence No. 81	Map Index:08254	—Dates Last Seen—	Lat/Long: 37°55'55" / 122°41'21"	Township: 99X
Occ Rank: Unknown		Element: 1986-06-12	UTM: Zone-10 N4198104 E527316	Range: 99X
Origin: Natural/Native occurrence		Site: 1986-06-12	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation:
Main Source: EVENS, J. ET AL 1986 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: COVE IN BOLINAS LAGOON AT MOUTH OF PIKE COUNTY GULCH				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: ONE RAIL RESPONDED TO A TAPED CALL DURING 1986 SURVEY.				
Owner/Manager: UNKNOWN				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

RALLUS LONGIROSTRIS OBSOLETUS
CALIFORNIA CLAPPER RAIL
Element Code: ABNME05016

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: Endangered	Global: G5T1	CDFG Status:
State: Endangered	State: S1	

—Habitat Associations—

General: SALT-WATER & BRACKISH MARSHES TRAVERSED BY TIDAL SLOUGHS IN THE VICINITY OF SAN FRANCISCO BAY.

Micro: ASSOCIATED WITH ABUNDANT GROWTHS OF PICKLEWEED, BUT FEEDS AWAY FROM COVER ON INVERTEBRATES FROM MUD-BOTTOMED SLOUGHS.

Occurrence No. 2	Map Index:08274	—Dates Last Seen—	Lat/Long: 37°55'15" / 122°40'32"	Township: 01N
Occ Rank: Unknown		Element: 1975-XX-XX	UTM: Zone-10 N4196875 E528516	Range: 08E
Origin: Natural/Native occurrence		Site: 1975-XX-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation:
Main Source: GILL, R. 1979 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: BOLINAS LAGOON.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: ONE RAIL OBSERVED IN 1970; ONE RAIL OBSERVED IN 1973.				
Owner/Manager: UNKNOWN				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CHARADRIUS ALEXANDRINUS NIVOSUS
WESTERN SNOWY PLOVER
Element Code: ABNNB03031

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: Threatened	Global: G4T3	CDFG Status: SC
State: None	State: S2	

—Habitat Associations—

General: (NESTING) FEDERAL LISTING APPLIES ONLY TO THE PACIFIC COASTAL POPULATION.

Micro: SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES. NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Occurrence No. 70	Map Index:08288	—Dates Last Seen—	Lat/Long: 37°54'27" / 122°39'54"	Township: 01N
Occ Rank: Unknown		Element: 1978-XX-XX	UTM: Zone-10 N4195408 E529435	Range: 07W
Origin: Natural/Native occurrence		Site: 1978-XX-XX	Precision: NON-SPECIFIC	Section: 19 Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: M
Trend: Unknown			Area: 220.7 ac	Elevation: 10 ft
Main Source: PAGE, G. & L. STENZEL 1981 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: BOLINAS LAGOON SPIT, WEST OF STINSON BEACH.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: 1-2 NESTS OBSERVED DURING THE 1970'S; ONE PAIR OBSERVED DURING THE 1978 STUDY.				
Owner/Manager: MRN COUNTY, PVT				

STRIX OCCIDENTALIS CAURINA
NORTHERN SPOTTED OWL
Element Code: ABNSB12011

—List Status—
Federal: Threatened
State: None

—NDDB Element Ranks—
Global: G3T3
State: S2S3

—Other Lists—
CDFG Status: SC

—Habitat Associations—

General: OLD-GROWTH FORESTS OR MIXED STANDS OF OLD-GROWTH & MATURE TREES. OCCASIONALLY IN YOUNGER FORESTS W/PATCHES OF BIG TREES.
Micro: HIGH, MULTISTORY CANOPY DOMINATED BY BIG TREES, MANY TREES W/CAVITIES OR BROKEN TOPS, WOODY DEBRIS & SPACE UNDER CANOPY.

Occurrence No. A03 Map Index:18002 —Dates Last Seen— Lat/Long: 37°54'46" / 122°38'50" Township: 99X
Occ Rank: Unknown Element: 1983-11-XX UTM: Zone-10 N4195999 E530999 Range: 99X
Origin: Natural/Native occurrence Site: 1983-11-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 300 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR017.
Owner/Manager: UNKNOWN

Occurrence No. A04 Map Index:18003 —Dates Last Seen— Lat/Long: 37°56'24" / 122°44'18" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4198999 E523000 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 350 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR007.
Owner/Manager: UNKNOWN

Occurrence No. A05 Map Index:18004 —Dates Last Seen— Lat/Long: 37°56'24" / 122°43'37" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4198999 E523999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 600 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stewart Point
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR008.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STRIX OCCIDENTALIS CAURINA (cont.)

NORTHERN SPOTTED OWL

Element Code: ABNSB12011

-----List Status-----
Federal: Threatened
State: None

-----NDDB Element Ranks-----
Global: G3T3
State: S2S3

-----Other Lists-----
CDFG Status: SC

Occurrence No. A06 Map Index:18005 ---Dates Last Seen--- Lat/Long: 37°56'24" / 122°40'12" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4198999 E528999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 600 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Bolinas Ridge Southeast
Location: SEE LIST OF QUADS.
-----Comments-----
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR012.
Owner/Manager: UNKNOWN

Occurrence No. A08 Map Index:18007 ---Dates Last Seen--- Lat/Long: 37°56'57" / 122°43'37" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4200000 E523999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 700 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stewart Point
Location: SEE LIST OF QUADS.
-----Comments-----
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR024.
Owner/Manager: UNKNOWN

Occurrence No. A09 Map Index:18008 ---Dates Last Seen--- Lat/Long: 37°56'56" / 122°38'50" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4199999 E530999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 500 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Bolinas Ridge Southeast
Location: SEE LIST OF QUADS.
-----Comments-----
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR011.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STRIX OCCIDENTALIS CAURINA (cont.)

NORTHERN SPOTTED OWL

Element Code: ABNSB12011

—List Status—
Federal: Threatened
State: None

—NDDB Element Ranks—
Global: G3T3
State: S2S3

—Other Lists—
CDFG Status: SC

Occurrence No. A10 Map Index:18009 —Dates Last Seen— Lat/Long: 37°58'02" / 122°44'17" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4201999 E522999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 900 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR023.
Owner/Manager: UNKNOWN

Occurrence No. All Map Index:18010 —Dates Last Seen— Lat/Long: 37°58'34" / 122°45'39" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4202999 E520999 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 1050 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: DOUBLE POINT (3712287/467E)*, BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR006.
Owner/Manager: UNKNOWN

Occurrence No. A13 Map Index:18012 —Dates Last Seen— Lat/Long: 37°59'39" / 122°45'39" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4205000 E521000 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 400 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: DOUBLE POINT (3712287/467E)*, BOLINAS (3712286/467B), INVERNESS (3812217/485D)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
—Comments—
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR005.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STRIX OCCIDENTALIS CAURINA (cont.)

NORTHERN SPOTTED OWL

Element Code: ABNSB12011

—List Status—
Federal: Threatened
State: None

NDDB Element Ranks
Global: G3T3
State: S2S3

Other Lists
CDFG Status: SC

Occurrence No. A14 Map Index:18013 —Dates Last Seen— Lat/Long: 38°00'11" / 122°41'33" Township: 99X
Occ Rank: Unknown Element: 19XX-XX-XX UTM: Zone-10 N4206000 E527000 Range: 99X
Origin: Natural/Native occurrence Site: 19XX-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 3/5 mile Elevation: 600 ft
Main Source: GOULD, G. 1991 CDFG SPOTTED OWL DATABASE
Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: SEE LIST OF QUADS.
Comments:
Distribution:
Ecological: NESTING TERRITORIES BASE ON OBSERVATION OF INDIVIDUAL.
Threat: TIMBER HARVEST.
General: NESTING TERRITORY NUMBER(S) = MR019.
Owner/Manager: UNKNOWN

CYPSELOIDES NIGER

BLACK SWIFT

Element Code: ABNUA01010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G4

State: S2

—Other Lists—

CDFG Status: SC

—Habitat Associations—

General: (NESTING) COASTAL BELT OF SANTA CRUZ & MONTEREY CO; CENTRAL & SOUTHERN SIERRA NEVADA; SAN BERNARDINO & SAN JACINTO MTNS.
Micro: BREEDS IN SMALL COLONIES ON CLIFFS BEHIND OR ADJ TO WATERFALLS IN DEEP CANYONS AND SEA-BLUFFS ABOVE SURF; FORAGES WIDELY

Occurrence No. 15 Map Index:08217

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: GOULD, G. 1986 (PERS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary: Stewart Point

Location: PALOMARIN, N OF BOLINAS

—Comments—

Distribution:

Ecological: RARE, LOCAL SUMMER RESIDENT WHICH ARRIVES IN MID-MAY FOR NESTING. NESTS ONLY ON CLIFFS BEHIND OR ADJACENT TO
WATERFALLS. LAYS A SINGLE EGG PER SEASON.

Threat:

General: TWO OBSERVED DURING NESTING SEASON; TAKEN FROM AMERICAN BIRDS 37(6):1024.

Owner/Manager: UNKNOWN

—Dates Last Seen—

Element: 1983-06-02

Site: 1983-06-02

Lat/Long: 37°55'34" / 122°43'02"

UTM: Zone-10 N4197449 E524852

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1 mile

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 600 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

GEOTHLYPIS TRICHAS SINUOSA
SALT MARSH COMMON YELLOWTHROAT
Element Code: ABPBX1201A

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5T2	CDFG Status: SC
State: None	State: S2	

Habitat Associations

General: RESIDENT OF THE SAN FRANCISCO BAY REGION, IN FRESH AND SALT WATER MARSHES.

Micro: REQUIRES THICK, CONTINUOUS COVER DOWN TO WATER SURFACE FOR FORAGING; TALL GRASSES, TULE PATCHES, WILLOWS FOR NESTING.

Occurrence No. 50	Map Index: 08247	—Dates Last Seen—	Lat/Long: 37°56'03" / 122°41'48"	Township: 99X
Occ Rank: Unknown		Element: 1985-XX-XX	UTM: Zone-10 N4198348 E526656	Range: 99X
Origin: Natural/Native occurrence		Site: 1985-XX-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation:
Main Source: U.S. FISH & WILDLIFE SERVICE 1986 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: TIP OF BOLINAS LAGOON, 0.9 MILE SE OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.				
Comments:				
Distribution:				
Ecological:				
Threat:				
General: 2 BREEDING PAIRS OBSERVED IN 1985 IN AN AREA OF UPLAND VEGETATION INTERSPERSED WITH RUSHES.				
Owner/Manager: NPS-GGNRA				

Occurrence No. 51	Map Index: 08221	—Dates Last Seen—	Lat/Long: 37°57'14" / 122°42'55"	Township: 99X
Occ Rank: Unknown		Element: 1985-XX-XX	UTM: Zone-10 N4200531 E525013	Range: 99X
Origin: Natural/Native occurrence		Site: 1985-XX-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation: 140 ft
Main Source: U.S. FISH & WILDLIFE SERVICE 1986 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: DOGTOWN MARSH, SAN ANDREAS RIFT ZONE, 0.8 MILE NW OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.				
Comments:				
Distribution:				
Ecological:				
Threat:				
General: 3 BREEDING PAIRS OBSERVED IN A 1985 SURVEY IN CATTAILS AND WILLOWS, NEAR THE EDGE OF THE MARSH.				
Owner/Manager: NPS-POINT REYES NS				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ONCORHYNCHUS KISUTCH

COHO SALMON - CENTRAL CALIFORNIA ESU
Element Code: AFCHA02030

—List Status—
Federal: Threatened
State: Endangered

—NDDB Element Ranks—
Global: G5
State: S2?

—Other Lists—
CDFG Status: SC

—Habitat Associations—

General: FEDERAL LISTING = POPS BETWEEN PUNTA GORDA & SAN LORENZO RIVER. STATE LISTING = POPS SOUTH OF SAN FRANCISCO BAY ONLY
Micro: REQUIRE BEDS OF LOOSE, SILT-FREE, COARSE GRAVEL FOR SPAWNING. ALSO NEED COVER, COOL WATER & SUFFICIENT DISSOLVED OXYGEN.

Occurrence No. 9 Map Index:40996 —Dates Last Seen— Lat/Long: 38°02'56" / 122°45'23" Township: 02N
Occ Rank: Unknown Element: 1999-XX-XX UTM: Zone-10 N4211072 E521356 Range: 08W
Origin: Natural/Native occurrence Site: 1999-XX-XX Precision: NON-SPECIFIC Section: 05 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 1,870.4 ac Elevation: 180 ft
Main Source: NATIONAL PARKS SERVICE 1999 (LIT)
Quad Summary: INVERNESS (3812217/485D)*, BOLINAS (3712286/467B), DOUBLE POINT (3712287/467E), SAN GERONIMO (3812216/484C)
County Summary: MARIN
SNA Summary:
Location: LAGUNITAS CREEK DRAINAGE, POINT REYES STATION, POINT REYES NATIONAL SEASHORE, SAMUAL P. TAYLOR STATE PARK.
—Comments—
Distribution: OLEMA CREEK: 15 SURVEYS (13.4-15.6 KM SECTIONS) 1994-98; LAGUNITAS CREEK: 41 SURVEYS (13.3 KM SECTIONS) 1982-98; DEVIL'S GULCH: 38 SURVEYS (1.6-3.2 KM SECTIONS) 1948-98; SAN GERONIMO CREEK: 32 SURVEYS (6.7 KM SECTIONS) 1982-98. TOTAL 36KM
Ecological: THESE STREAMS ARE THOUGHT TO BE WHERE UP TO 10 % OF CALIFORNIA'S COHO SPAWN. REPORT HAS INFORMATION ON EACH STREAM BY: YEAR; NUMBER & AREA OF SURVEYS; TOTAL FISH (LIVE & DEAD) COUNT; TOTAL CARCASSES; TOTAL NEW REDDS; & SOURCES OF DATA.
Threat: DEVELOPMENT, AGRICULTURE, DAMS, SILTATION.
General: FISH TOTALS (LIVE & DEAD) FOR THE LAGUNITAS CREEK WATERSHED: 1995-96, 290; 1996-97, 525; 1997-98, 241. MARIN MWD SURVEYS, TOTAL FISH/ YEAR: 216/1993; 578/1994; 210/1995; 246/1996; 541/1997; 124/1998; 168/1999.
Owner/Manager: NPS-POINT REYES NS, PVT

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CORYNORHINUS TOWNSENDII TOWNSENDII
TOWNSEND'S WESTERN BIG-EARED BAT
Element Code: AMACC08015

—List Status—
Federal: None
State: None

—NDDB Element Ranks—
Global: G4T3T4
State: S2S3

—Other Lists—
CDFG Status: SC

—Habitat Associations—

General: HUMID COASTAL REGIONS OF NORTHERN & CENTRAL CALIFORNIA. ROOST IN LIMESTONE CAVES, LAVA TUBES, MINES, BUILDINGS ETC.
Micro: WILL ONLY ROOST IN THE OPEN, HANGING FROM WALLS & CEILINGS. ROOSTING SITES LIMITING. EXTREMELY SENSITIVE TO DISTURBANCE

Occurrence No. 3 Map Index: 36741 —Dates Last Seen— Lat/Long: 37°58'20" / 122°43'57" Township: 02N
Occ Rank: Good Element: 1992-07-20 UTM: Zone-10 N4202572 E523506 Range: 08W
Origin: Natural/Native occurrence Site: 1992-07-20 Precision: NON-SPECIFIC Section: 34 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 68.9 ac Elevation: 400 ft
Main Source: FELLERS, G. 1992 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: RANDALL HOUSE, POINT REYES NATIONAL SEASHORE, 5 MILES SOUTH OF OLEMA, HIGHWAY 1.
—Comments—
Distribution: MATERNITY ROOST. MAPPED TO INCLUDE THE BUILDINGS LOCATED CLOSEST TO THE COORDINATES GIVEN.
Ecological: ABANDONED HOUSE ON THE GROUND OF POINT REYES NATIONAL SEASHORE. DURING WINTER OF 1987 THE PARK MADE A NUMBER OF REPAIRS TO DETER VANDALS. RISK TO THE COLONY IS NOW RATED AS LOW.
Threat: FIRE, RENEWED VANDALISM.
General: 9 BATS OBSERVED 2/5/88. 183 ROOSTING BATS SEEN 4/18/92 & 268 SEEN 7/20/92. THIS SITE MAY BE ALTERNATE ROOST FOR COPPER MINE GULCH OR WHEN THE OLEMA ROOST 8 KM TO THE NORTH WAS DESTROYED, THE SURVIVORS MAY HAVE JOINED THE PT REYES COLONY.
Owner/Manager: DPR-POINT REYES NS

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

APLODONTIA RUFA PHAEA
POINT REYES MOUNTAIN BEAVER
Element Code: AMAFA01012

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5T2	CDFG Status: SC
State: None	State: S2	

Habitat Associations

General: COASTAL AREA OF POINT REYES IN AREAS OF SPRINGS OR SEEPAGES.

Micro: NORTH FACING SLOPES OF HILLS & GULLIES IN AREAS OVERGROWN WITH SWORD FERNS AND THIMBLEBERRIES.

Occurrence No. 3	Map Index: 08246	—Dates Last Seen—	Lat/Long: 38°00'38" / 122°42'02"	Township: 99X
Occ Rank: None		Element: 1909-12-31	UTM: Zone-10 N4206822 E526287	Range: 99X
Origin: Natural/Native occurrence		Site: 1981-XX-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Possibly Extirpated			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 240 ft
Main Source: STEELE, D. 1982 (LIT)				
Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: LAGUNITAS.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: 1 CAS & 2 MVZ SPECIMENS. 1981 SURVEY DID NOT LOCATE AN EXTANT POPULATION IN THE AREA.				
Owner/Manager: DPR-SAMUEL P. TAYLOR SP, PVT				

SERPENTINE BUNCHGRASS

Element Code: CTT42130CA

—List Status—

Federal: None
State: None

—NDDB Element Ranks—

Global: G2
State: S2.2

—Other Lists—

—Habitat Associations—

General: None for this Element
Micro: None for this Element

Occurrence No. 10 Map Index: 08341

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: MCCARTEN, N. 1986 (LIT)

Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: BELOW CARSON RIDGE, ABOVE ALPINE LK, BOTH SIDES OF FAIRFAX- BOLINAS RD.

—Comments—

Distribution: SERPENTINE EXTENDS TO N; COMMUNITY BOUNDARY UNKNOWN.

Ecological: TO E OF RD; ROLLING GRASSLAND W/NATIVES INCL POA SECUNDA, NASSELLA PULCHRA. TO W OF MAIN RD; BURNED SERP CHAP
RECOVERING W/6-12 IN DIAM ELYMUS GLAUCUS, CLAYTONIA GYPSOPHILOIDES, CALYSTEGIA SUBACALIS, LOMATIUM
DASYCARPUM, OTHER NATIVES.

Threat:

General: THIS WAS OCC #010 OF CTT42130CA.

Owner/Manager: MARIN MWD

Lat/Long: 37°57'53" / 122°37'20"

—Dates Last Seen—
Element: 1987-04-05

Site: 1987-04-05

UTM: Zone-10 N4201762 E533184

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1 mile

Township: 02N

Range: 06W

Section: XX Qtr XX

Meridian: M

Elevation: 1000 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CAECIDOTEA TOMALENSIS
TOMALES ISOPOD
Element Code: ICMA01220

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G2	CDFG Status:
State: None	State: S2	

—Habitat Associations—

General: INHABITS LOCALIZED FRESH-WATER PONDS OR STREAMS WITH STILL OR NEAR-STILL WATER IN SEVERAL BAY AREA COUNTIES.
Micro: None for this Element

Occurrence No. 1	Map Index:08266	—Dates Last Seen—	Lat/Long: 37°55'52" / 122°40'47"	Township: 99X
Occ Rank: Good		Element: 1984-01-23	UTM: Zone-10 N4198014 E528146	Range: 99X
Origin: Natural/Native occurrence		Site: 1984-01-23	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation: 100 ft
Main Source: SERPA, L. 1984 (PERS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: AUDUBON CYN RANCH (VOLUNTEER CANYON) TRIB TO BOLINAS LAGOON.				
—Comments—				
Distribution:				
Ecological: INHABIT SHALLOW, FRESH-WATER PONDS WITH AN OVERSTORY OF RED MAPLE, WHICH PROVIDES SHADE AND LEAVES.				
Threat: 1982 FLOODS NEARLY FILLED PONDS WITH MUD; THEY WERE SUBSEQUENTLY DREDGED OUT, AND THE ISOPOD SURVIVED.				
General: ALSO COLLECTED BY IVERSON AND CARLETON IN FEBRUARY 1972 (USNM #141809) AND SCNEIDER IN DECEMBER 1971 (CAS, #UNKNOWN).				
Owner/Manager: AUDUBON-AUDUBON CANYON RANCH				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

HYDROCHARA RICKSECKERI

RICKSECKER'S WATER SCAVENGER BEETLE
Element Code: IICOL5V010

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G1G2	CDFG Status:
State: None	State: S1S2	

—Habitat Associations—

General: AQUATIC; KNOWN FROM THE SAN FRANCISCO BAY AREA.
Micro: None for this Element

Occurrence No. 2	Map Index:08236	—Dates Last Seen—	Lat/Long: 37°54'44" / 122°42'05"	Township: 99X
Occ Rank: Unknown		Element: 1940-01-27	UTM: Zone-10 N4195912 E526249	Range: 99X
Origin: Natural/Native occurrence		Site: 1940-01-27	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 160 ft
Main Source: EDWARDS, K. 1985 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: VICINITY OF BOLINAS, ON THE SOUTH END OF POINT REYES NATIONAL SEASHORE, MARIN COUNTY.				
—Comments—				
Distribution:				
Ecological: MEMBERS OF THE FAMILY HYDROPHILIDAE ARE SCAVENGERS, WHOSE AQUATIC LARVAE ARE PREDACEOUS; NOTHING IS KNOWN OF HABITS SPECIFIC TO THIS TAXA.				
Threat:				
General: MUSEUM RECORD: CAS #001, COLLECTED BY H. P. CHANDLER.				
Owner/Manager: PVT				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DANAUS PLEXIPPUS

MONARCH BUTTERFLY

Element Code: IILEPP2010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G4

State: S3

—Other Lists—

CDFG Status:

Habitat Associations

General: WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro: ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

*** SENSITIVE ***

Occurrence No. 10 Map Index: —Dates Last Seen— Lat/Long: / Township:
Occ Rank: Fair Element: 1997-10-19 UTM: Range:
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: Section: Qtr
Presence: Presumed Extant Symbol Type: Meridian:
Trend: Unknown Radius: Elevation:
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: *SENSITIVE* Location information suppressed.

Comments

Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.

Ecological: AUTUMNAL SITE. HABITAT IS EUCALYPTUS TREES LINING EITHER SIDE OF MAPLE ROAD.

Threat: POSSIBLE THREAT OF DEVELOPMENT.

General:

Owner/Manager:

*** SENSITIVE ***

Occurrence No. 11 Map Index: —Dates Last Seen— Lat/Long: / Township:
Occ Rank: Good Element: 1998-01-03 UTM: Range:
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: Section: Qtr
Presence: Presumed Extant Symbol Type: Meridian:
Trend: Fluctuating Radius: Elevation:
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: *SENSITIVE* Location information suppressed.

Comments

Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.

Ecological: ROOST TREES USED TO BE MONTEREY CYPRESSES UNTIL THEY WERE CUT DOWN IN 1986 BY THE OWNER. PRESENT ROOST TREES ARE EUCALYPTUS FOUND IN A DRAINAGE.

Threat:

General:

Owner/Manager:

*** SENSITIVE ***

Occurrence No. 12 Map Index: —Dates Last Seen— Lat/Long: / Township:
Occ Rank: Good Element: 1997-10-19 UTM: Range:
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: Section: Qtr
Presence: Presumed Extant Symbol Type: Meridian:
Trend: Fluctuating Radius: Elevation:
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: *SENSITIVE* Location information suppressed.

Comments

Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.

Ecological: HABITAT IS A RESIDENTIAL LOT SURROUNDED BY A DENSE GROVE OF EUCALYPTUS TREES.

Threat: THREATENED BY TREE TRIMMING; EUCALYPTUS WINDROW SURROUNDING LOT IS GRADUALLY BEING

General:

Owner/Manager:

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DANAUS PLEXIPPUS (cont.)
MONARCH BUTTERFLY
Element Code: IILEPP2010

-----List Status-----NDDB Element Ranks-----Other Lists-----
Federal: None Global: G4 CDFG Status:
State: None State: S3

*** SENSITIVE ***

Occurrence No. 13 Map Index: ---Dates Last Seen--- Lat/Long: / Township:
Occ Rank: Fair Element: 1997-10-19 UTM: Range:
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: Section: Qtr
Presence: Presumed Extant Symbol Type: Meridian:
Trend: Decreasing Radius: Elevation:
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: *SENSITIVE* Location information suppressed.
-----Comments-----
Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.
Ecological: HABITAT IS PLANTED EUCALYPTUS AND MONTEREY CYPRESS IN A MOIST COASTAL CANYON BELOW THE ROAD; EUCALYPTUS, CYPRESS, AND PINE ARE FOUND ON THE HILL ABOVE THE ROAD.
Threat: THREATS INCLUDE HEDGE/TREE TRIMMING IN THE VICINITY OF THE SITE & DEVELOPMENT. SITE BECOMING SENESCENT - TREES TOO TALL.
General:
Owner/Manager:

*** SENSITIVE ***

Occurrence No. 16 Map Index: ---Dates Last Seen--- Lat/Long: / Township:
Occ Rank: Good Element: 1998-01-03 UTM: Range:
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: Section: Qtr
Presence: Presumed Extant Symbol Type: Meridian:
Trend: Fluctuating Radius: Elevation:
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stinson Beach
Location: *SENSITIVE* Location information suppressed.
-----Comments-----
Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.
Ecological: HABITAT CONSISTS OF AN OLD EUCALYPTUS AND CYPRESS GROVE ADJACENT TO A CREEK.
Threat: SITE DAMAGE FROM HEAVY UNDERSTORY REMOVAL ON THE SOUTH SIDE. SURROUNDING DEVELOPMENT AT THIS SITE IS ALSO A THREAT.
General:
Owner/Manager:

Occurrence No. 17 Map Index: 08185 ---Dates Last Seen--- Lat/Long: 37°55'53" / 122°43'56" Township: 99X
Occ Rank: Good Element: 1991-01-XX UTM: Zone-10 N4198030 E523532 Range: 99X
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1/5 mile Elevation: 250 ft
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stewart Point
Location: PALOMARIN TRAILHEAD, AT THE END OF MESA ROAD, POINT REYES NATIONAL SEASHORE.
-----Comments-----
Distribution:
Ecological: AUTUMNAL SITE, PRIMARILY. HABITAT IS AN ISOLATED EUCALYPTUS GROVE, WITH A FEW DOUGLAS FIRS, SURROUNDED BY COASTAL SAGE SCRUB.
Threat: POSSIBLE THREAT FROM EUCALYPTUS REMOVAL PROJECT.
General: MONARCHS IN THE LOW HUNDREDS WERE OBSERVED ON 17 FEB 85. 5000 OBSERVED IN JAN 91, EVEN THOUGH THIS SITE FUNCTIONS MAINLY AS AN AUTUMNAL SITE. NONE OBSERVED IN JAN 93, 1993-94, 1994-1995. FLYER OBSERVED ON 6 JAN 96. NONE OBSERVED, 3 JAN 98.
Owner/Manager: NPS-POINT REYES NS

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DANAUS PLEXIPPUS (cont.)
MONARCH BUTTERFLY
Element Code: IILEPP2010

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G4	CDFG Status:
State: None	State: S3	

*** SENSITIVE ***

Occurrence No. 18	Map Index:	—Dates Last Seen—	Lat/Long: /	Township:
Occ Rank: None		Element: 1985-01-21	UTM:	Range:
Origin: Natural/Native occurrence		Site: 1996-01-06	Precision:	Section: Qtr
Presence: Extirpated			Symbol Type:	Meridian:
Trend: Decreasing			Radius:	Elevation:
Main Source: SAKAI, W. 1989 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: *SENSITIVE* Location information suppressed.				
—Comments—				
Distribution: Please contact the California Natural Diversity Database, California Department of Fish and Game, for more information: (916) 324-3812.				
Ecological: HABITAT WAS THE MAIN BRANCH OF A LARGE CYPRESS TREE, UPON WHICH THE MONARCHS CLUSTERED; THIS TREE FELL DURING A WINTER STORM TWO YEARS AGO.				
Threat: SURROUNDING AREA IS RESIDENTIAL; MAIN THREAT IS DEVELOPMENT.				
General:				
Owner/Manager:				

Occurrence No. 232	Map Index: 26245	—Dates Last Seen—	Lat/Long: 37°53'53" / 122°42'29"	Township: 99X
Occ Rank: Fair		Element: 1990-02-XX	UTM: Zone-10 N4194329 E525664	Range: 99X
Origin: Natural/Native occurrence		Site: 1998-01-03	Precision: SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: M
Trend: Unknown			Area: 3.8 ac	Elevation: 20 ft
Main Source: SAKAI, W. 1991 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: AGATE BEACH SITE, JUST EAST OF AGATE BEACH, BOLINAS.				
—Comments—				
Distribution: SITE IS LOCATED ALONG AN UNNAMED CREEK DRAINING INTO AGATE BEACH.				
Ecological: AUTUMNAL SITE. HABITAT CONSISTS OF A CREEK AREA LINED WITH EUCALYPTUS.				
Threat:				
General: 500 OBSERVED IN JAN/FEB 1990. NONE WERE FOUND DURING A SITE VISIT IN NOV 1990, WINTER 1992-93, ON 9 JAN 1994, JAN 1995, OR ON 3 JAN 1998.				
Owner/Manager: PVT				

Occurrence No. 233	Map Index: 26241	—Dates Last Seen—	Lat/Long: 37°54'55" / 122°42'32"	Township: 99X
Occ Rank: Good		Element: 1990-11-XX	UTM: Zone-10 N4196235 E525578	Range: 99X
Origin: Natural/Native occurrence		Site: 1998-01-03	Precision: SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: M
Trend: Unknown			Area: 10.0 ac	Elevation: 150 ft
Main Source: SAKAI, W. 1991 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: ALONG AN UNNAMED DRAINAGE, JUST WEST OF MESA ROAD, NORTH OF THE "PURPLE GATE," AND SOUTH OF PRBO, NORTH OF BOLINAS.				
—Comments—				
Distribution:				
Ecological: HABITAT CONSISTS OF A EUCALYPTUS-LINED DRAINAGE.				
Threat:				
General: 10,000 OBSERVED IN NOVEMBER 1990 (4 VISITS IN WINTER 1990-91). NONE OBSERVED DURING WINTER 1992-93. NONE OBSERVED ON 3 JAN 98.				
Owner/Manager: PVT				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DANAUS PLEXIPPUS (cont.)

MONARCH BUTTERFLY

Element Code: IILEPP2010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G4

State: S3

—Other Lists—

CDFG Status:

Occurrence No. 234 Map Index:26242 —Dates Last Seen— Lat/Long: 37°55'01" / 122°42'24" Township: 99X
Occ Rank: Good Element: 1990-11-XX UTM: Zone-10 N4196431 E525779 Range: 99X
Origin: Natural/Native occurrence Site: 1995-01-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 250 ft
Main Source: SAKAI, W. 1991 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: FORMER BOLINAS VET HOSPITAL, JUST NORTH OF BOLINAS.
—Comments—
Distribution: MONARCHS CLUSTER IN TREES LOCATED BEHIND THE HOUSE.
Ecological: HABITAT CONSISTS OF PLANTED PINES, CYPRESSES, AND FIRS (TREES PROBABLY PLANTED IN THE 1950'S).
Threat:
General: ACCORDING TO THE OWNER, WHO HAS LIVED HERE SINCE 1979, BUTTERFLIES ROOST HERE EVERY YEAR. SEVERAL THOUSAND WERE OBSERVED IN NOVEMBER 1990. NONE WERE OBSERVED DURING A SINGLE SITE VISIT DURING 1992-93 OR DURING SEVERAL VISITS IN 1994-95.
Owner/Manager: PVT

Occurrence No. 235 Map Index:26243 —Dates Last Seen— Lat/Long: 37°54'39" / 122°41'21" Township: 99X
Occ Rank: Good Element: 1994-XX-XX UTM: Zone-10 N4195759 E527335 Range: 99X
Origin: Natural/Native occurrence Site: 1994-XX-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 10.0 ac Elevation: 150 ft
Main Source: SAKAI, W. 1989 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: "BOLINAS SEWAGE FACILITY" SITE, JUST SOUTH OF THE INTERSECTION OF OLEMA-BOLINAS ROAD AND MESA ROAD, BOLINAS
—Comments—
Distribution:
Ecological: ROOST TREES CONSIST OF AN "L-SHAPED" GROVE OF EUCALYPTUS BORDERING THE ROADWAY, EXTENDING AS WINDROWS FOR 0.25 MILE ALONG THE MESA, IN AN EAST-WEST ORIENTATION; MARSH NEARBY.
Threat:
General: 1500 OBSERVED ROOSTING DURING A SINGLE SITE VISIT IN WINTER 1993-94. 600 OBSERVED ON 6 JAN 1996. NONE OBSERVED ON 3 JAN 1998.
Owner/Manager: PVT

Occurrence No. 236 Map Index:26240 —Dates Last Seen— Lat/Long: 37°55'17" / 122°43'22" Township: 99X
Occ Rank: Good Element: 1991-XX-XX UTM: Zone-10 N4196938 E524375 Range: 99X
Origin: Natural/Native occurrence Site: 1998-01-03 Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 200 ft
Main Source: SAKAI, W. 1991 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: WEST OF MESA ROAD, ADJACENT TO THE BOLINAS MILITARY RESERVATION AND NORTH OF THE RADIO TOWERS, NORTH OF BOLINAS.
—Comments—
Distribution:
Ecological: AUTUMNAL SITE. HABITAT CONSISTS OF A EUCALYPTUS GROVE IN AN UNNAMED DRAINAGE, SURROUNDED BY MARINE TERRACE THAT IS GRAZED BY CATTLE.
Threat:
General: 5000 OBSERVED ROOSTING IN WINTER 1990-91 (5 SITE VISITS). NONE OBSERVED DURING SINGLE SITE VISITS IN WINTER 1992-93 AND WINTER 1993-94. NONE OBSERVED ON 6 JAN 1996 OR ON 3 JAN 98.
Owner/Manager: PVT

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DANAUS PLEXIPPUS (cont.)

MONARCH BUTTERFLY

Element Code: IILEPP2010

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G4

State: S3

—Other Lists—

CDFG Status:

Occurrence No. 237 Map Index:26244

Occ Rank: Poor

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: SAKAI, W. 1994 (OBS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: HAWTHORNE SITE, ALONG ELM ROAD, BETWEEN IRIS ROAD AND HAWTHORNE ROAD, BOLINAS.

—Comments—

Distribution: MONARCHS ROOST ABOVE THE STREET IN THE OPENING IN THE GROVE CREATED BY ELM ROAD.

Ecological: HABITAT CONSISTS OF A EUCALYPTUS GROVE BISECTED BY ELM ROAD.

Threat: POSSIBLE THREAT OF DEVELOPMENT.

General: 130+ OBSERVED ROOSTING DURING WINTER 1993-94. SITE HAS BEEN COMPROMISED BY TREE TRIMMING AND TREE LOSS DUE TO WIND DAMAGE; NO MONARCHS OBSERVED IN JAN 1995. A SINGLE MONARCH WAS OBSERVED IN JAN 1996. NONE OBSERVED ON 3 JAN 1998.

Owner/Manager: PVT

Occurrence No. 316 Map Index:33364

Occ Rank: Good

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: SAKAI, W. 1995 (OBS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: BOLINAS MCI SITE, NW OF BOLINAS.

—Comments—

Distribution: CYPRESS GROVES SURROUND A COMPLEX OF BUILDINGS ORIGINALLY USED BY MCI (NOW OCCUPIED BY A NON-PROFIT GROUP, USED AS A RETREAT).

Ecological: HABITAT CONSISTS OF GROVES OF CYPRESSES (SOME PINES).

Threat:

General: REPORTEDLY USED DURING THE PAST DECADE, EXCEPT FOR THE PAST FEW YEARS.

Owner/Manager: PVT

Lat/Long: 37°54'02" / 122°42'00"

UTM: Zone-10 N4194613 E526384

Precision: SPECIFIC

Symbol Type: POINT

Radius: 80 meters

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 160 ft

Lat/Long: 37°54'53" / 122°43'33"

UTM: Zone-10 N4196177 E524093

Precision: SPECIFIC

Symbol Type: POLYGON

Area: 37.6 ac

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 150 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CIRSIIUM HYDROPHILUM VAR VASEYI
MT. TAMALPAIS THISTLE
Element Code: PDAST2E1G2

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G1T1	CNPS List: 1B
State: None	State: S1.2	R-E-D Code: 3-2-3

—Habitat Associations—

General: BROADLEAFED UPLAND FOREST, CHAPARRAL. ENDEMIC TO MARIN COUNTY.
Micro: SERPENTINE SEEPS AND STREAMS IN CHAPARRAL AND WOODLAND. 265-620M.

Occurrence No. 6	Map Index:08317	—Dates Last Seen—	Lat/Long: 37°57'33" / 122°37'44"	Township: 99X
Occ Rank: Good		Element: 1993-06-02	UTM: Zone-10 N4201139 E532594	Range: 99X
Origin: Natural/Native occurrence		Site: 1993-06-02	Precision: SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 80 meters	Elevation: 780 ft
Main Source: RAICHE, R. 1986 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Blue Mtn. Southern Slope				
Location: LIBERTY SPRINGS ALONG FAIRFAX-BOLINAS ROAD, 1.2 MILES SOUTHEAST OF PINE MOUNTAIN SUMMIT, EAST OF BOLINAS RIDGE.				

—Comments—

Distribution: ON WEST SIDE OF ROAD, ADJACENT TO SPRINGS AT ROADSIDE. ABOUT 100 FEET SOUTH OF CONCRETE WATER TROUGH.

Ecological: IN PERENNIAL SERPENTINE SEEPS SURROUNDED BY SERPENTINE CHAPARRAL. ASSOCIATED WITH ZIGADENUS MACRANTHUS VAR. FONTANUS, RHODODENDRON OCCIDENTALE, UMBELLULARIA CALIFORNICA, STACHYS PYCNANTHA, AQUILEGIA EXIMIA, CIRSIIUM VULGARE, ET AL.

Threat: NO THREATS CURRENTLY, BUT ROAD MAINTENANCE ACTIVITIES COULD ELIMINATE POPULATION.

General: ABOUT 150 PLANTS IN 1986, 22 IN 1993, 36 PLANTS IN 1994. THE RARE ZIGADENUS MICRANTHUS VAR. FONTANUS AND LESSINGIA MICRADENIA VAR. MICRADENIA ALSO OCCUR HERE.

Owner/Manager: MARIN MWD

Occurrence No. 7	Map Index:31755	—Dates Last Seen—	Lat/Long: 37°57'49" / 122°37'35"	Township: 02N
Occ Rank: Excellent		Element: 1992-05-06	UTM: Zone-10 N4201656 E532814	Range: 07W
Origin: Natural/Native occurrence		Site: 1992-05-06	Precision: SPECIFIC	Section: 33 Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: M
Trend: Unknown			Area: 3.4 ac	Elevation: 880 ft
Main Source: ALLEN, R. 1992 (OBS)				
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)				
County Summary: MARIN				
SNA Summary:				
Location: BOLINAS-FAIRFAX ROAD EAST OF LIBERTY GULCH, ABOUT 1 MILE WSW OF CAMP LILLENTHAL, WEST OF SAN RAFAEL.				

—Comments—

Distribution: 2 COLONIES: W COLONY IN SERPENTINE SEEP CROSSING OLD LIBERTY GULCH ROAD, WEST OF BOLINAS-FAIRFAX ROAD. E COLONY JUST EAST OF BOLINAS-FAIRFAX ROAD, ABOVE PARKING AREA FOR AZALEA HILL, ABOUT 30 FEET NORTH (UPHILL) OF FIRE ROAD.

Ecological: SERPENTINE SEEP ON SW-FACING SLOPE. WITH STACHYS PYCNANTHA, JUNCUS SPP., MIMULUS GUTTATUS, MYRICA CALIFORNICA, THERMOPSIS MACROPHYLLA, BACCHARIS PILULARIS VAR. CONSANGUINEA, PLANTAGO HOOKERIANA VAR. CALIFORNICA, FESTUCA CALIFORNICA, ET AL.

Threat: TRAIL IMPROVEMENT, ESPECIALLY CULVERT DEVELOPMENT WOULD THREATEN.

General: 262 PLANTS IN 1992 AT WESTERN COLONY. 8 PLANTS OBSERVED AT EASTERN COLONY IN 1994.

Owner/Manager: MARIN MWD

Occurrence No. 8	Map Index:42363	—Dates Last Seen—	Lat/Long: 37°58'48" / 122°38'57"	Township: 02N
Occ Rank: Unknown		Element: 1990-XX-XX	UTM: Zone-10 N4203474 E530796	Range: 07W
Origin: Natural/Native occurrence		Site: 1990-XX-XX	Precision: SPECIFIC	Section: 29 Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: M
Trend: Unknown			Area: 2.7 ac	Elevation: 880 ft
Main Source: PATTERSON, C. 1990 (LIT)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: NORTH OF PINE MOUNTAIN SUMMIT, ABOUT 1.7 MILES SOUTHEAST OF GREEN HILL, EAST OF BOLINAS RIDGE, WEST OF FAIRFAX.				

—Comments—

Distribution: 2 COLONIES, ON WEST FACING SLOPE JUST NNE OF PINE MOUNTAIN SUMMIT.

Ecological: SERPENTINE SEEP.

Threat:

General: UNKNOWN NUMBER OF PLANTS OBSERVED BY PATTERSON IN 1989-1990.

Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CIRSIMUM HYDROPHILUM VAR VASEYI (cont.)

MT. TAMALPAIS THISTLE

Element Code: PDAST2E1G2

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G1T1

State: S1.2

—Other Lists—

CNPS List: 1B

R-E-D Code: 3-2-3

Occurrence No. 9 Map Index: 42364

Occ Rank: Excellent

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: RAICHE, R. 1986 (OBS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: SOUTHERN FLANK OF PINE MOUNTAIN, ABOUT 2.3 MILES SOUTHEAST OF GREEN HILL, EAST OF BOLINAS RIDGE, WEST OF FAIRFAX.

—Comments—

Distribution: 2 COLONIES MAPPED, MAY OCCUR IN OTHER SERPENTINE SEEPS IN THIS VICINITY.

Ecological: SERPENTINE SEEPS SURROUNDED BY SERPENTINE CHAPARRAL. WITH ZIGADENUS FONTANUS, LILIUM PARDALINUM, EPIPACTIS GIGANTEA, PARNASSIA CALIFORNICA, RHODODENDRON OCCIDENTALE, DESCHAMPSIA CESPITOSA, CAREX SPP., RHAMNUS CALIFORNICA, ET AL.

Threat:

General: 100-200 PLANTS OBSERVED IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED BY PATTERSON IN 1988-1990. THE RARE ZIGADENUS MICRANTHUS VAR. FONTANUS ALSO OCCURS AT THIS SITE.

Owner/Manager: MARIN MWD

—Dates Last Seen— Lat/Long: 37°58'26" / 122°38'41"

Element: 1990-XX-XX UTM: Zone-10 N4202797 E531184

Site: 1990-XX-XX Precision: SPECIFIC

Symbol Type: POLYGON

Area: 2.2 ac

Township: 02N

Range: 07W

Section: 32 Qtr XX

Meridian: M

Elevation: 1300 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

LESSINGIA MICRADENIA VAR MICRADENIA

TAMALPAIS LESSINGIA

Element Code: PDAST5S063

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G2T1	CNPS List: 1B
State: None	State: S1.1	R-E-D Code: 3-2-3

Habitat Associations

General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND. ENDEMIC TO MARIN COUNTY.

Micro: USUALLY ON SERPENTINE, IN SERPENTINE GRASSLAND OR SERPENTINE CHAPARRAL. OFTEN ON ROADSIDES. 100-305M.

Occurrence No. 1 Map Index:26549 —Dates Last Seen— Lat/Long: 37°57'42" / 122°37'15" Township: 01N
 Occ Rank: Good Element: 1994-08-17 UTM: Zone-10 N4201413 E533309 Range: 07W
 Origin: Natural/Native occurrence Site: 1994-08-17 Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 101.7 ac Elevation: 1000 ft
 Main Source: FOLLETTE, W. 1994 (OBS)
 Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: NEAR ALPINE LAKE AND ALONG THE FAIRFAX-BOLINAS ROAD.
 —Comments—
 Distribution: SEVERAL COLONIES: 5 COLONIES MAPPED IN ONE POLYGON ON THE S SIDE OF THE LAKE FROM THE SPILLWAY WEST ABOUT 0.5 MILE;; OTHER COLONIES MAPPED ALONG THE N SIDE OF THE LAKE AND ALONG BOLINAS-FAIRFAX ROAD. INCL SITES: AZALEA HILL, CARSON RIDGE.
 Ecological: SERPENTINE GRASSLAND AND OPENINGS IN SERPENTINE CHAPARRAL. ASSOCIATED WITH AVENA BARBATA, AIRA CARYOPHYLLA, MELICA, CEANOTHUS JEPSONII, QUERCUS DURATA, ADENOSTOMA, ERIODICTYON, PERIDERIDIA KELLOGGII, HEMIZONIA CONGESTA CONGESTA, ET AL.
 Threat: TRAMPLING, ROADSIDE CLEARING, AND SPRAYING.
 General: THOUSANDS OF PLANTS OBSERVED IN 1994. OTHER RARE PLANTS (CIRSIIUM HYDROPHYLLUM VASEYI, CALAMAGROSTIS OPHITIDUS, AND ARCTOSTAPHYLOS HOOKERI MONTANA) OCCUR WITHIN OR ADJACENT TO SOME OF THE COLONIES.
 Owner/Manager: MARIN MWD

Occurrence No. 3 Map Index:26548 —Dates Last Seen— Lat/Long: 37°58'53" / 122°36'25" Township: 01N
 Occ Rank: Unknown Element: 1938-05-22 UTM: Zone-10 N4203618 E534518 Range: 07W
 Origin: Natural/Native occurrence Site: 1938-05-22 Precision: NON-SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 1 mile Elevation: 400 ft
 Main Source: HOWELL, J. #13795 CAS #263927 (HERB)
 Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: SAN ANSELMO CANYON.
 —Comments—
 Distribution: MAPPED ALONG SAN ANSELMO CREEK, WEST OF SAN ANSELMO. LOCATION TENTATIVE.
 Ecological:
 Threat:
 General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1938 COLLECTION BY HOWELL.
 Owner/Manager: UNKNOWN

Occurrence No. 4 Map Index:26246 —Dates Last Seen— Lat/Long: 37°57'51" / 122°37'50" Township: 01N
 Occ Rank: Poor Element: 1994-08-17 UTM: Zone-10 N4201690 E532457 Range: 07W
 Origin: Natural/Native occurrence Site: 1994-08-17 Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 80 meters Elevation: 800 ft
 Main Source: FOLLETTE, W. 1994 (OBS)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: FAIRFAX-BOLINAS ROAD AT LIBERTY GULCH, WEST OF CARSON RIDGE.
 —Comments—
 Distribution: MAPPED ON NORTHWEST SIDE OF ROAD AT SHARP TURN IN ROAD AT LIBERTY GULCH.
 Ecological: ALONG THE ROADSIDE UNDER A PSEUDOTSUGA MENZEISII AND QUERCUS AGRIFOLIA. ANOTHER RARE PLANT, CEANOTHUS MASONII (ONE PLANT), OCCURS JUST UPHILL FROM THIS SITE.
 Threat: GETTING RUN OVER BY CARS, ROADSIDE CLEARING AND SPRAYING.
 General: 50 PLANTS OBSERVED IN 1994.
 Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STREPTANTHUS BATRACHOPUS
TAMALPAIS JEWEL-FLOWER
Element Code: PDBRA2G050

—List Status—	NDDB Element Ranks	Other Lists
Federal: None	Global: G1	CNPS List: 1B
State: None	State: S1.2	R-E-D Code: 3-1-3

—Habitat Associations—

General: CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL. ENDEMIC TO MARIN COUNTY.
Micro: TALUS SERPENTINE OUTCROPS. 410-650M.

Occurrence No. 4 Map Index:08321 —Dates Last Seen— Lat/Long: 37°59'00" / 122°38'42" Township: 99X
Occ Rank: Excellent Element: 1993-04-28 UTM: Zone-10 N4203819 E531178 Range: 99X
Origin: Natural/Native occurrence Site: 1993-04-28 Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 37.9 ac Elevation: 1480 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: CARSON RIDGE, BTWN PINE MTN & SAN GERONIMO RIDGE.
—Comments—
Distribution: MAPPED AS 3 POLYGONS: 0.65 MI N OF PINE MTN; AT JCT OF PINE MTN RD/REPACK RD; & 0.35-0.55 MI S OF THAT JCT. ONE COLLECTION FROM "ALONG THE FIREBREAK TRAIL ON CARSON RIDGE"; ANOTHER FROM "CARSON RIDGE, SUMMIT AT HEAD OF BIG CARSON CANYON".
Ecological: ON SERPENTINE WITH ARCTOSTAPHYLOS HOOKERI MONTANA, CEANOTHUS JEPSONII, PICKERINGIA MONTANA, EPILOBIUM MINUTUM, AND CUPRESSUS SARGENTII. IN 1946, PLANTS FOUND IN DISTURBED SOIL ON BURN.
Threat:
General: LOCALLY ABUNDANT IN 1937 AND 1938. SEEN IN ALL POLYGONS IN 1990 (UNKNOWN HOW MANY); 2000-3000 PLANTS SEEN IN MIDDLE POLYGON IN 1993.
Owner/Manager: MARIN MWD

Occurrence No. 5 Map Index:08301 —Dates Last Seen— Lat/Long: 37°59'51" / 122°39'35" Township: 99X
Occ Rank: Good Element: 1990-09-XX UTM: Zone-10 N4205399 E529885 Range: 99X
Origin: Natural/Native occurrence Site: 1990-09-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 31.7 ac Elevation: 1360 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: NW SLOPE SAN GERONIMO RIDGE, ABOUT 1.5 MI ABOVE (S OF) SAN GERONIMO. 0.5-0.7 MI DUE E OF GREEN HILL.
—Comments—
Distribution: A 1938 COLLECTION (MORRISON #3109 UC) LISTS LOCATION AS "ON OPEN SERPENTINE OUTCROP ALONG THE TRAIL TO SAN GERONIMO RIDGE ABOUT 200 YARDS FROM THE SPRING THAT MARKS THE NORTH END OF CARSON RIDGE."
Ecological: IN CUPRESSUS SARGENTII ASSOCIATION.
Threat:
General: UNKNOWN HOW MANY PLANTS SEEN IN 1990. MANY COLLECTIONS FROM "SAN GERONIMO RIDGE" FROM 1938, 1947, AND 1948.
Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STREPTANTHUS GLANDULOSUS SSP PULCHELLUS

MT. TAMALPAIS JEWEL-FLOWER
Element Code: PDBRA2G0J2

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G4T1	CNPS List: 1B
State: None	State: S1.2	R-E-D Code: 3-2-3

—Habitat Associations—

General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND. ENDEMIC TO MARIN COUNTY.
Micro: SERPENTINE SLOPES. 150-800M.

Occurrence No. 5 Map Index:08387 —Dates Last Seen— Lat/Long: 37°54'13" / 122°37'44" Township: 01N
Occ Rank: Unknown Element: 1932-05-22 UTM: Zone-10 N4194968 E532615 Range: 07W
Origin: Natural/Native occurrence Site: 1932-05-22 Precision: NON-SPECIFIC Section: 22 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 178.0 ac Elevation: 700 ft
Main Source: SCHREIBER, B. #288 UC (HERB)
Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: MATT DAVIS TRAIL, MOUNT TAMALPAIS.
—Comments—
Distribution:
Ecological: DRY SLOPE.
Threat:
General: UNKNOWN WHERE ALONG TRAIL PLANTS WERE COLLECTED. NO ELEVATION GIVEN ON HERBARIUM LABEL.
Owner/Manager: DPR-MOUNT TAMALPAIS SP

Occurrence No. 7 Map Index:08326 —Dates Last Seen— Lat/Long: 37°56'26" / 122°38'22" Township: 01N
Occ Rank: Unknown Element: 1927-07-04 UTM: Zone-10 N4199075 E531682 Range: 07W
Origin: Natural/Native occurrence Site: 1927-07-04 Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1 mile Elevation: 600 ft
Main Source: EASTWOOD, A. SN CAS (HERB)
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
County Summary: MARIN
SNA Summary:
Location: NEAR ALPINE DAM.
—Comments—
Distribution:
Ecological:
Threat:
General: NONE.
Owner/Manager: PVT, MT TAMALPAIS GAME REFUGE

Occurrence No. 8 Map Index:08294 —Dates Last Seen— Lat/Long: 37°59'05" / 122°39'45" Township: 02N
Occ Rank: Unknown Element: 1925-05-XX UTM: Zone-10 N4203967 E529638 Range: 07W
Origin: Natural/Native occurrence Site: 1925-05-XX Precision: NON-SPECIFIC Section: 30 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1 mile Elevation:
Main Source: SUTLIFFE, E. SN CAS #128672 (HERB)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: BIG CARSON RIDGE.
—Comments—
Distribution:
Ecological:
Threat:
General: NONE.
Owner/Manager: PVT

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

STREPTANTHUS GLANDULOSUS SSP *PULCHELLUS* (cont.)

MT. TAMALPAIS JEWEL-FLOWER
Element Code: PDBRA2G0J2

-----List Status-----
Federal: None
State: None

-----NDDB Element Ranks-----
Global: G4T1
State: S1.2

-----Other Lists-----
CNPS List: 1B
R-E-D Code: 3-2-3

Occurrence No. 16 Map Index:36466 ---Dates Last Seen--- Lat/Long: 37°58'04" / 122°37'33" Township: 02N
Occ Rank: Good Element: 1997-05-31 UTM: Zone-10 N4202104 E532862 Range: 07W
Origin: Natural/Native occurrence Site: 1997-05-31 Precision: SPECIFIC Section: 33 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 1120 ft
Main Source: ODION, D. 1997 (OBS)
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
County Summary: MARIN
SNA Summary:
Location: NE OF LIBERTY GULCH, ON E SIDE OF PINE MTN TRUCK TRAIL, W SIDE OF BOLINAS-FAIRFAX RD.
-----Comments-----
Distribution:
Ecological: SERPENTINE BARRENS WITH ERIODICTYON CALIFORNICUM, LESSINGIA MICRADENIA, CALOCHORTUS LUTEUS, AND ARCTOSTAPHYLOS
HOOKERI.
Threat: GOATRASS (AEGILOPS TRIUNCIALIS) HAS INVADDED NEARBY, EVEN GROWING ON SERPENTINE BARRENS (1997).
General: 47 PLANTS IN 1997.
Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARCTOSTAPHYLOS HOOKERI SSP MONTANA

MT. TAMALPAIS MANZANITA
Element Code: PDERI040J5

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G3T2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 3-1-3

—Habitat Associations—

General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND. KNOWN FROM FEWER THAN 20 OCCURRENCES IN THE MT. TAMALPAIS AREA, MARIN COUNTY.
Micro: SERPENTINE SLOPES IN CHAPARRAL AND GRASSLAND. 160-760M.

Occurrence No. 1 Map Index:08374 —Dates Last Seen— Lat/Long: 37°57'09" / 122°37'16" Township: 01N
Occ Rank: Excellent Element: 1996-05-10 UTM: Zone-10 N4200413 E533283 Range: 07W
Origin: Natural/Native occurrence Site: 1996-05-10 Precision: SPECIFIC Section: 03 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 1,793.4 ac Elevation: 1200 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B), SAN GERONIMO (3812216/484C)
County Summary: MARIN
SNA Summary:
Location: RIDGES EAST OF BOLINAS RIDGE, FROM MT TAMALPAIS NORTH TO SAN GERONIMO RIDGE, WEST OF SAN ANSELMO.
—Comments—
Distribution: NUMEROUS COLONIES MAPPED IN THIS AREA; FROM PANORAMIC HIGHWAY ON THE SOUTH SIDE OF MT TAMALPAIS NNW TO GREEN HILL (NE OF KENT LAKE). NEED OVERLAYS TO APPRECIATE DETAIL.
Ecological: TYPICALLY ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.
Threat:
General: 10,000-100,000+ PLANTS ESTIMATED IN 1990. TYPE LOCALITY. THE MAJORITY OF THE KNOWN INDIVIDUALS OF THIS SPECIES ARE WITHIN THIS OCCURRENCE. INCLUDES FORMER OCCURRENCES #7, 8, 9, 10, 11.
Owner/Manager: MARIN MWD

Occurrence No. 19 Map Index:42039 —Dates Last Seen— Lat/Long: 37°56'55" / 122°38'20" Township: 01N
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4199984 E531704 Range: 07W
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: 04 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 1200 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: OAT HILL, WEST OF ALPINE LAKE AND NORTHWEST OF MOUNT TAMALPAIS.
—Comments—
Distribution: MAPPED ALONG THE WEST SIDE OF OAT HILL.
Ecological: PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.
Threat:
General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990).
Owner/Manager: MARIN MWD

Occurrence No. 20 Map Index:42040 —Dates Last Seen— Lat/Long: 37°59'35" / 122°38'10" Township: 02N
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4204911 E531937 Range: 07W
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: 21 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 9.0 ac Elevation: 1100 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: ABOUT 0.5 MILE WEST OF WHITE HILL, NORTHEAST OF PINE MOUNTAIN AND NORTH OF MOUNT TAMALPAIS.
—Comments—
Distribution: MAPPED SOUTH OF RIDGE ROAD ABOVE TRIBUTARY TO CASCADE CREEK.
Ecological: PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.
Threat:
General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990).
Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARCTOSTAPHYLOS HOOKERI SSP MONTANA (cont.)
MT. TAMALPAIS MANZANITA
Element Code: PDERI040J5

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G3T2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 3-1-3

Occurrence No. 21 Map Index: 42041 —Dates Last Seen— Lat/Long: 37°59'11" / 122°37'58" Township: 02N
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4204165 E532229 Range: 07W
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: 28 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 6.0 ac Elevation: 1000 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: ABOUT 0.7 MILE SOUTHWEST OF WHITE HILL, NORTHEAST OF PINE MOUNTAIN AND NORTH OF MOUNT TAMALPAIS.
Comments:
Distribution: MAPPED SOUTHWEST OF CASCADE CREEK ALONG DIRT ROAD.
Ecological: PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.
Threat:
General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990).
Owner/Manager: MARIN MWD

Occurrence No. 24 Map Index: 42044 —Dates Last Seen— Lat/Long: 38°03'08" / 122°34'03" Township: 03N
Occ Rank: Unknown Element: XXXX-XX-XX UTM: Zone-10 N4211521 E537930 Range: 06W
Origin: Natural/Native occurrence Site: XXXX-XX-XX Precision: NON-SPECIFIC Section: 31 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 5 mile Elevation: 1000 ft
Main Source: SMITH, D. 1996 (PERS)
Quad Summary: NOVATO (3812215/484D)*, SAN RAFAEL (3712285/467A), BOLINAS (3712286/467B), PETALUMA POINT (3812214/483C), SAN GERONIMO (3812216/484C)
County Summary: MARIN
SNA Summary:
Location: NORTH OF FAIRFAX AND EAST OF WOODACRE.
Comments:
Distribution: MAPPED IN GENERAL VICINITY OF THE NOVATO QUADRANGLE. ONLY SOURCE OF INFORMATION IS REPORT OF OCCURENCE ALONG ROADSIDE ON THIS QUAD.
Ecological:
Threat:
General: MORE INFORMATION NEEDED FOR THIS SITE.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARCTOSTAPHYLOS VIRGATA
MARIN MANZANITA
Element Code: PDERI041K0

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 2-2-3

—Habitat Associations—

General: BROADLEAFED UPLAND FOREST, CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, NORTH COAST CONIFEROUS FOREST.
Micro: ONLY KNOWN FROM ABOUT 20 EOS IN MARIN COUNTY. ON SANDSTONE OR GRANITIC SOIL. 60-700M.

Occurrence No. 5 Map Index:08207 —Dates Last Seen— Lat/Long: 37°56'10" / 122°43'19" Township: 01N
Occ Rank: Fair Element: 1997-03-14 UTM: Zone-10 N4198569 E524427 Range: 08W
Origin: Natural/Native occurrence Site: 1997-03-14 Precision: SPECIFIC Section: 10 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 45.8 ac Elevation: 680 ft
Main Source: FOWLER, R. 1983 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stewart Point
Location: PABLO POINT, ABOUT 2.5 MILES NW OF BOLINAS, POINT REYES NATIONAL SEASHORE.
—Comments—
Distribution: SEVERAL COLONIES ALONG AND WEST OF PABLO POINT.
Ecological: DOUGLAS FIR FOREST. ASSOCIATED WITH TOXICODENDRON DIVERSILOBUM, QUERCUS CHRYSOLEPIS, RHAMNUS CALIFORNICUS, MIMULUS AURANTIACUS, CEANOTHUS THYRSIFLORUS, ERIODICTYON CALIFORNICUM, AND BACCHARIS PILULARIS.
Threat: SHADING BY TREES, TRAIL-EDGE PRUNING.
General: 300+ PLANTS IN 8 POPULATIONS SEEN IN 1983; 1 POP CONSISTS OF VERY LARGE "CARCASSES", THE OTHER POPULATIONS HAVE BOTH HEALTHY AND DECADENT INDIVIDUALS. PLANTS OBSERVED BUT NOT WELL COUNTED IN 1996/7. MANY PLANTS HAVE DIED DUE TO SHADING.
Owner/Manager: NPS-POINT REYES NS

Occurrence No. 6 Map Index:08167 —Dates Last Seen— Lat/Long: 37°57'51" / 122°44'40" Township: 02N
Occ Rank: Unknown Element: 1983-04-04 UTM: Zone-10 N4201665 E522428 Range: 08W
Origin: Natural/Native occurrence Site: 1983-04-04 Precision: SPECIFIC Section: 33 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 5.5 ac Elevation: 1200 ft
Main Source: FOWLER, R. 1983 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: ABOUT 2 MILES NNW OF PABLO POINT, NW OF BOLINAS, POINT REYES NATIONAL SEASHORE.
—Comments—
Distribution: THREE COLONIES MAPPED ALONG TRAIL NEAR HEAD OF ARROYO HONDO.
Ecological: DOUGLAS FIR FOREST. ASSOCIATED WITH VACCINIUM OVATUM, ARBUTUS MENZIESII, ERIODICTYON CALIFORNICUM, BACCHARIS PILULARIS, UMBELLULARIA CALIFORNICA, STACHYS RIGIDA, AND PTERIDIUM AQUILINUM.
Threat: OVERSHADED BY MATURE FOREST.
General: 3 SMALL POPULATIONS IN 1983 (5 LIVE PLANTS, 30 DEAD OR DECADENT).
Owner/Manager: NPS-POINT REYES NS

Occurrence No. 7 Map Index:08183 —Dates Last Seen— Lat/Long: 37°55'57" / 122°44'00" Township: 99X
Occ Rank: Unknown Element: 1982-XX-XX UTM: Zone-10 N4198153 E523434 Range: 99X
Origin: Natural/Native occurrence Site: 1983-04-06 Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1/5 mile Elevation: 200 ft
Main Source: TRUE, G. 1969 (PERS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Stewart Point
Location: NEAR MOUTH OF ARROYO HONDO CANYON, SOUTH END POINT REYES NATIONAL SEASHORE.
—Comments—
Distribution: MAPPED NEAR GATE ON ARROYO HONDO MAINTENANCE ROAD.
Ecological: BEING SHADED BY LIVE OAKS.
Threat: SHADED BY LIVE OAK AND DOUGLAS-FIR. ROAD DEVELOPMENT ALSO A POTENTIAL THREAT.
General: 1 PLANT IN 1969, 1977, 1982. NOT SEEN IN 1983. INCLUDES FORMER OCCURRENCE #9; A VAGUE SITE FROM THE SAME GENERAL LOCALITY.
Owner/Manager: NPS-POINT REYES NS

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ARCTOSTAPHYLOS VIRGATA (cont.)

MARIN MANZANITA

Element Code: PDERI041K0

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G2

State: S2.2

—Other Lists—

CNPS List: 1B

R-E-D Code: 2-2-3

Occurrence No. 8 Map Index:08334 —Dates Last Seen— Lat/Long: 37°57'49" / 122°37'50" Township: 02N
Occ Rank: Unknown Element: 1965-02-22 UTM: Zone-10 N4201640 E532447 Range: 07W
Origin: Natural/Native occurrence Site: 1965-02-22 Precision: NON-SPECIFIC Section: 33 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1/5 mile Elevation: 850 ft
Main Source: HENNINGS, D. #4 SFSU (HERB)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: 0.25 MILE NORTHWEST OF THE NORTHWEST ARM OF ALPINE LAKE NEAR FAIRFAX-BOLINAS ROAD, NORTHWEST OF MOUNT TAMALPAIS.
—Comments—
Distribution: MAPPED ALONG LIBERTY GULCH AT FAIRFAX-BOLINAS ROAD CROSSING.
Ecological: GROWING WITH PSEUDOTSUGA MENZIESII, QUERCUS, AND UMBELLULARIA CALIFORNICA, ARBUTUS MENZIESII, AND MIMULUS.
Threat:
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1965 COLLECTION BY HENNINGS.
Owner/Manager: UNKNOWN

Occurrence No. 10 Map Index:41729 —Dates Last Seen— Lat/Long: 37°59'56" / 122°40'22" Township: 02N
Occ Rank: Unknown Element: 1994-03-08 UTM: Zone-10 N4205562 E528725 Range: 07W
Origin: Natural/Native occurrence Site: 1994-03-08 Precision: SPECIFIC Section: 19 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 6.4 ac Elevation: 1100 ft
Main Source: FOLLETTE, W. 1994 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: GREEN HILL ALONG SAN GERONIMO RIDGE, NORTHEAST OF KENT LAKE AND NORTHWEST OF MOUNT TAMALPAIS.
—Comments—
Distribution: MAPPED ALONG PINE MOUNTAIN TRUCK ROAD, ABOUT 0.5 MILE NORTHEAST OF THE CARSON CREEK ARM OF KENT LAKE.
Ecological: HARD, DENSE CHAPARRAL WITH ARCTOSTAPHYLOS GLANDULOSA AND SCATTERED PSEUDOTSUGA MENZIESII, AND CEANOTHUS SP.
ROCKY SERPENTINE RIDGETOP WITH A SW-EXPOSURE.
Threat: FIRE ROAD GRADING, BRUSH REMOVAL, CONTROLLED BURNING (THREAT?).
General: 1 PLANT NOTED BY FOLLETTE IN 1994. C. PATTERSON MAPPED LARGER POPULATION AT THIS SITE IN 1990; AREA SEARCHED IN 1994 BUT NO PLANTS OBSERVED.
Owner/Manager: MARIN MWD

Occurrence No. 16 Map Index:37150 —Dates Last Seen— Lat/Long: 37°56'54" / 122°40'04" Township: 01N
Occ Rank: Unknown Element: 1995-03-07 UTM: Zone-10 N4199930 E529173 Range: 07W
Origin: Natural/Native occurrence Site: 1995-03-07 Precision: SPECIFIC Section: 06 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 70.7 ac Elevation: 1500 ft
Main Source: FOLLETTE, W. 1993 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: Bolinas Ridge Southeast
Location: BOLINAS RIDGE, ALONG BOLINAS RIDGE TRAIL ABOUT 0.3-1.5 MILES NW OF BOLINAS-FAIRFAX ROAD, SOUTH OF KENT LAKE.
—Comments—
Distribution: SEVERAL COLONIES MAPPED ALONG BOTH SIDES OF TRAIL.
Ecological: ON EDGE OF CHAPARRAL AND FOREST. ASSOCIATED WITH LITHOCARPUS DENSIFLORUS, SEQUOIA SEMPERVIRENS, ARBUTUS MENZIESII, PSEUDOTSUGA MENZIESII, CEANOTHUS THYRSIFLORUS, VACCINIUM OVATUM, ERIODICTYON CALIFORNICUM, ARCTOSTAPHYLOS SPP, ET AL.
Threat: FIRE ROAD MAINTENANCE.
General: 6 PLANTS OBSERVED IN 1 COLONY IN 1985, 33 PLANTS IN 3 COLONIES IN 1993, 12 PLANTS IN NEW COLONY IN 1995. PLANTS MAPPED BUT NOT COUNTED IN 1990.
Owner/Manager: MARIN MWD, NPS-GGNRA

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

AMORPHA CALIFORNICA VAR NAPENSIS

NAPA FALSE INDIGO

Element Code: PDFAB08012

-----List Status-----

Federal: None

State: None

-----NDDB Element Ranks-----

Global: G4T2

State: S2.2

-----Other Lists-----

CNPS List: 1B

R-E-D Code: 2-2-3

-----Habitat Associations-----

General: BROADLEAFED UPLAND FOREST, CHAPARRAL, CISMONTANE WOODLAND.

Micro: OPENINGS IN FOREST OR WOODLAND OR IN CHAPARRAL. 150-2000M

Occurrence No. 4 Map Index:08246

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: EASTWOOD, A. SN UC #13279 (HERB)

Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: LAGUNITAS STATION.

-----Comments-----

Distribution: EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS TO INCLUDE LAGUNITAS BY CNDDB.

Ecological:

Threat:

General: NEEDS FIELDWORK, SOLE SOURCE OF INFORMATION IS 1896 COLLECTION BY EASTWOOD.

Owner/Manager: UNKNOWN

-----Dates Last Seen-----

Element: 1896-08-09

Site: 1896-08-09

Lat/Long: 38°00'38" / 122°42'02"

UTM: Zone-10 N4206822 E526287

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1 mile

Township: 99X

Range: 99X

Section: XX Qtr XX

Meridian: M

Elevation: 240 ft

Occurrence No. 35 Map Index:45289

Occ Rank: Unknown

Origin: Natural/Native occurrence

Presence: Presumed Extant

Trend: Unknown

Main Source: FOLLETTE, W. 2001 (PERS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: ALPINE DAM, PUMP ROAD.

-----Comments-----

Distribution: MAPPED 1 MILE AWAY FROM DAM ALONG ROAD BY CNDDB.

Ecological:

Threat:

General: NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

-----Dates Last Seen-----

Element: XXXX-XX-XX

Site: XXXX-XX-XX

Lat/Long: 37°56'59" / 122°38'46"

UTM: Zone-10 N4200118 E531091

Precision: NON-SPECIFIC

Symbol Type: POINT

Radius: 1/5 mile

Township: 01N

Range: 07W

Section: 05 Qtr SE

Meridian: M

Elevation: 580 ft

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

TRIFOLIUM AMOENUM

SHOWY INDIAN CLOVER

Element Code: PDFAB40040

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: Endangered	Global: G1	CNPS List: 1B
State: None	State: S1.1	R-E-D Code: 3-3-3

—Habitat Associations—

General: VALLEY AND FOOTHILL GRASSLAND, COASTAL BLUFF SCRUB.

Micro: SOMETIMES ON SERPENTINE SOIL, OPEN SUNNY SITES, SWALES. MOST RECENTLY SITED ON ROADSIDE AND ERODING CLIFF FACE. 5-560M.

Occurrence No. 3	Map Index: 08311	—Dates Last Seen—	Lat/Long: 37°54'07" / 122°38'42"	Township: 99X
Occ Rank: None		Element: 1927-04-24	UTM: Zone-10 N4194794 E531200	Range: 99X
Origin: Natural/Native occurrence		Site: 1985-04-23	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Possibly Extirpated			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 100 ft
Main Source: WOLF, C. #384 RSA (HERB)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: STINSON BEACH.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: HABITAT NOT SEARCHED FOR IN 1985; SP NOT REDISCOVERED.				
Owner/Manager: UNKNOWN				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

QUERCUS PARVULA VAR TAMALPAISENSIS

TAMALPAIS OAK

Element Code: PDFAG051Q3

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G4T1	CNPS List: 1B
State: None	State: S1.3	R-E-D Code: 3-1-3

Habitat Associations

General: LOWER MONTANE CONIFEROUS FOREST.

Micro: 100-750M.

Occurrence No. 6 Map Index:46536 —Dates Last Seen— Lat/Long: 37°59'52" / 122°40'15" Township: 02N
Occ Rank: Unknown Element: XXXX-XX-XX UTM: Zone-10 N4205422 E528892 Range: 07W
Origin: Natural/Native occurrence Site: XXXX-XX-XX Precision: NON-SPECIFIC Section: 19 Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 2/5 mile Elevation:
Main Source: LANGER, S. 1993 (PERS)
Quad Summary: BOLINAS (3712286/467B)*, SAN GERONIMO (3812216/484C)
County Summary: MARIN
SNA Summary:
Location: GREEN HILL, SAN GERONIMO RIDGE.
Comments:
Distribution:
Ecological:
Threat:
General: NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Occurrence No. 7 Map Index:46537 —Dates Last Seen— Lat/Long: 37°59'04" / 122°40'50" Township: 02N
Occ Rank: Unknown Element: XXXX-XX-XX UTM: Zone-10 N4203936 E528037 Range: 08W
Origin: Natural/Native occurrence Site: XXXX-XX-XX Precision: NON-SPECIFIC Section: 25 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 84.3 ac Elevation:
Main Source: LANGER, S. 1993 (PERS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: 0.8 MI S OF NE-TRENDING ARM OF KENT LAKE, NW SLOPE OF PINE MOUNTAIN RIDGE.
Comments:
Distribution: MAPPED AS BEST GUESS ALONG RIDGE ROAD 0.8 MI S OF LAKE BY CNDDB. LOCATION VAGUE.
Ecological:
Threat:
General: NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Occurrence No. 8 Map Index:46538 —Dates Last Seen— Lat/Long: 37°57'11" / 122°39'05" Township: 01N
Occ Rank: Unknown Element: XXXX-XX-XX UTM: Zone-10 N4200473 E530617 Range: 07W
Origin: Natural/Native occurrence Site: XXXX-XX-XX Precision: NON-SPECIFIC Section: 05 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 255.9 ac Elevation:
Main Source: LANGER, S. 1993 (PERS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: ALONG KENT PUMP ROAD, N OF ALPINE LAKE DAM.
Comments:
Distribution: MAPPED AS BEST GUESS ALONG UNNAMED ROAD FROM DAM TO TWO PUMPS AT KENT LAKE BY CNDDB.
Ecological:
Threat:
General: NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

HESPEROLINON CONGESTUM

MARIN WESTERN FLAX

Element Code: PDLIN01060

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: Threatened	Global: G2	CNPS List: 1B
State: Threatened	State: S2.1	R-E-D Code: 3-3-3

—Habitat Associations—

General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND. KNOWN ONLY FROM MARIN, S.F., AND SAN MATEO COUNTIES.
Micro: IN SERPENTINE BARRENS AND IN SERPENTINE GRASSLAND AND CHAPARRAL. 30-365M.

Occurrence No. 12 Map Index:21228 —Dates Last Seen— Lat/Long: 37°59'08" / 122°39'12" Township: 99X
Occ Rank: Excellent Element: 1990-XX-XX UTM: Zone-10 N4204063 E530452 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 1200 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary: San Geronimo
Location: CARSON RIDGE. 0.6 MI DUE N AND SLIGHTLY W OF PINE MOUNTAIN SUMMIT.
—Comments—
Distribution:
Ecological: IN SERPENTINE CHAPARRAL (HAD BEEN BURNED IN 1985 ACCORDING TO N. MCCARTEN). WITH QUERCUS DURATA, ADENOSTOMA, ARCTOSTAPHYLOS MONTANA, AND STREPTANTHUS GLANDULOSUS PULCHELLUS.
Threat:
General: ABOUT 75 PLANTS SEEN IN 1986, TOTAL OF SEVERAL HUNDRED TO A FEW THOUSAND PLANTS SEEN HERE AND AT OCCURRENCE #23 IN 1990. AREA IS AN ECOLOGICAL RESERVE ACCORDING TO MCCARTEN (1986). ONLY KNOWN OCCURRENCE ASSOCIATED WITH CHAPARRAL VEGETATION.
Owner/Manager: MARIN MWD

Occurrence No. 23 Map Index:21229 —Dates Last Seen— Lat/Long: 37°57'58" / 122°37'28" Township: 02N
Occ Rank: Good Element: 1997-05-XX UTM: Zone-10 N4201918 E532977 Range: 07W
Origin: Natural/Native occurrence Site: 1997-05-XX Precision: SPECIFIC Section: 33 Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 16.8 ac Elevation: 1120 ft
Main Source: SMITH, D. 1996 (OBS)
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
County Summary: MARIN
SNA Summary:
Location: CARSON RIDGE; PINE MOUNTAIN TRUCK ROAD, N FROM AZALEA HILL.
—Comments—
Distribution: ALONG BOTH SIDES OF TRUCK ROAD, FROM NEAR JCT W/FAIRFAX-BOLINAS RD, EXTENDING N FOR 0.4 MI.
Ecological: OPEN, ROCKY PLACES IN SERPENTINE CHAPARRAL. W/ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS HOOKERI MONTANA, NAVARRETTIA ROSULATA, HESPEROLINON MICRANTHUM, CALYCADENIA MULTIGLANDULOSA, MINUARTIA DOUGLASII, TRITELEIA LAXA, & NASSELLA PULCHRA.
Threat: POTENTIAL THREATS FROM TRAIL MAINTENANCE AND TRAMPLING BY HIKERS AND BIKERS. GOATGRASS IS INVADING HABITAT.
General: TOTAL OF SEVERAL HUNDRED TO A VERY FEW THOUSAND PLANTS SEEN HERE AND AT OCCURRENCE 12 IN 1990, TOTAL OF 238 PLANTS IN 2 SUBPOPULATIONS IN 1996, 2063 IN 1997.
Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

SIDALCEA CALYCOSA SSP RHIZOMATA
POINT REYES CHECKERBLOOM
Element Code: PDMAL11012

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G5T2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 2-2-3

—Habitat Associations—

General: MARSHES AND SWAMPS.

Micro: FRESHWATER MARSHES NEAR THE COAST. 5-75(245)M.

Occurrence No. 1	Map Index: 26548	—Dates Last Seen—	Lat/Long: 37°58'53" / 122°36'25"	Township: 01N
Occ Rank: Unknown		Element: 1922-04-XX	UTM: Zone-10 N4203618 E534518	Range: 07W
Origin: Natural/Native occurrence		Site: 1922-04-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 400 ft
Main Source: SUTTLIFF SN UC #871513 (HERB)				
Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: SAN ANSELMO CANYON.				
—Comments—				
Distribution:				
Ecological:				
Threat:				
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1922 COLLECTION BY SUTTLIFF.				
Owner/Manager: UNKNOWN				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

<i>SIDALCEA HICKMANII SSP VIRIDIS</i>	—List Status—	—NDDB Element Ranks—	—Other Lists—
MARIN CHECKERBLOOM	Federal: None	Global: G3T2	CNPS List: 1B
Element Code: PDMAL110A4	State: None	State: S2.2?	R-E-D Code: 3-1-3

—Habitat Associations—

General: CHAPARRAL.

Micro: SERPENTINE OR VOLCANIC SOILS; SOMETIMES APPEARS AFTER BURNS. 0-430M.

Occurrence No. 1 Map Index:36005 —Dates Last Seen— Lat/Long: 37°59'38" / 122°38'53" Township: 02N
 Occ Rank: Unknown Element: 1954-06-23 UTM: Zone-10 N4204990 E530904 Range: 07W
 Origin: Natural/Native occurrence Site: 1996-06-12 Precision: NON-SPECIFIC Section: 20 Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 1 mile Elevation: 1390 ft
 Main Source: EASTWOOD #12995 CAS #130943 (HERB)
 Quad Summary: BOLINAS (3712286/467B)*, SAN GERONIMO (3812216/484C)
 County Summary: MARIN
 SNA Summary:
 Location: BIG CARSON RIDGE, NORTHWEST OF MOUNT TAMALPAIS.
 —Comments—
 Distribution: EXACT LOCATION NOT KNOWN. MAPPED ALONG RIDGE AT HEAD OF BIG CARSON CREEK, TRIBUTARY TO KENT LAKE.
 Ecological: CHAPARRAL BURN ON SERPENTINE SOILS.
 Threat: NO PLANTS SEEN IN 1996; ILLEGAL TRAIL THROUGH AREA AND LACK OF FIRE COULD BE REASONS.
 General: TYPE LOCALITY. SEVERAL COLLECTIONS REPORTED FROM THIS SITE INCLUDING: EASTWOOD (#12995 CAS), HOWELL (#16997 DS), SUTLIFFE (SN, UNKNOWN HERB), LESCHKE (SN DS), AND HOWELL (#30005 CAS).
 Owner/Manager: MARIN COUNTY OPEN SPACE DIST

Occurrence No. 2 Map Index:36001 —Dates Last Seen— Lat/Long: 37°53'49" / 122°37'40" Township: 01N
 Occ Rank: Unknown Element: 1976-02-27 UTM: Zone-10 N4194239 E532717 Range: 07W
 Origin: Natural/Native occurrence Site: 1976-02-27 Precision: NON-SPECIFIC Section: 28 Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 2/5 mile Elevation: 500 ft
 Main Source: PINTLER, G. #1 CSUC #24432 (HERB)
 Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
 County Summary: MARIN
 SNA Summary:
 Location: ABOUT 0.5 MILE EAST OF JUNCTION OF HIGHWAY 1 AND PANORAMIC HIGHWAY, SOUTHWEST OF MOUNT TAMALPAIS.
 —Comments—
 Distribution: ABOUT 5 MILES NORTH OF HIGHWAY 1 AND 3.5 MILES SOUTHEAST OF MOUNT TAMALPAIS.
 Ecological: OPEN GRASSY AREA.
 Threat:
 General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1976 COLLECTION BY PINTLER.
 Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

LINANTHUS CROCEUS

COAST YELLOW LINANTHUS
Element Code: PDPLM09170

——List Status——
Federal: None
State: None

——NDDB Element Ranks——
Global: G1
State: S1.1

——Other Lists——
CNPS List: 1B
R-E-D Code: 3-3-3

——Habitat Associations——
General: COASTAL BLUFF SCRUB, COASTAL PRAIRIE.
Micro: 10-150M.

Occurrence No. 4 Map Index: 08236 —Dates Last Seen— Lat/Long: 37°54'44" / 122°42'05" Township: 99X
Occ Rank: None Element: 1937-06-XX UTM: Zone-10 N4195912 E526249 Range: 99X
Origin: Natural/Native occurrence Site: 1937-06-XX Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Possibly Extirpated Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1 mile Elevation: 160 ft
Main Source: ANONYMOUS SN UNK HERB (HERB)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: BOLINAS, NEAR RADIO STATION.
——Comments——
Distribution:
Ecological:
Threat:
General: POSSIBLY EXTIRPATED.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

NAVARRETIA ROSULATA

MARIN COUNTY NAVARRETIA

Element Code: PDPLMOCOZO

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G2?

State: S2?

—Other Lists—

CNPS List: 1B

R-E-D Code: 2-2-3

—Habitat Associations—

General: CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL. KNOWN ONLY FROM MARIN AND NAPA COUNTIES.

Micro: DRY, OPEN ROCKY PLACES; CAN OCCUR ON SERPENTINE. 200-635M.

Occurrence No. 4 Map Index:28956 —Dates Last Seen— Lat/Long: 37°57'40" / 122°37'49" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4201347 E532481 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 16.4 ac Elevation: 900 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: NORTH OF ALPINE LAKE AND WEST OF LIBERTY GULCH.
—Comments—
Distribution: ALONG WEST SIDE OF ROAD JUST WEST OF LIBERTY GULCH.
Ecological: SERPENTINE SOILS.
Threat:
General: THE MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.
Owner/Manager: DPR-MOUNT TAMALPAIS SP

Occurrence No. 5 Map Index:28957 —Dates Last Seen— Lat/Long: 37°58'05" / 122°37'39" Township: 99X
Occ Rank: Good Element: 1994-05-31 UTM: Zone-10 N4202116 E532711 Range: 99X
Origin: Natural/Native occurrence Site: 1994-05-31 Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 26.2 ac Elevation: 1150 ft
Main Source: FOLLETTE, W. 1994 (OBS)
Quad Summary: BOLINAS (3712286/467B)*, SAN RAFAEL (3712285/467A)
County Summary: MARIN
SNA Summary:
Location: NORTH OF ALPINE LAKE ALONG PINE MOUNTAIN TRUCK ROAD, ABOUT 0.5 MILE NORTHEAST OF LIBERTY GULCH.
—Comments—
Distribution: MAPPED BETWEEN LAKE AND PARK BOUNDARY ALONG BOTH SIDES OF THE ROAD.
Ecological: SERPENTINE RIDGE IN OPEN CHAPARRAL W/CEANOTHUS JEPSONII, ADENOSTOMA FASCICULATUM, ERIODICTYON CALIFORNICUM, MONARDELLA FRANCISCANA, ERIOGONUM LUTEOLUM, CLAYTONIA GYPSOPHYLLOIDES, QUERCUS DURATA, PICKERINGIA MONTANA, AND CALYSTEGIA COLLINA.
Threat: POSSIBLE TRAMPLING FROM HIKERS AND BIKES.
General: 1000+ PLANTS OBSERVED BY FOLLETTE IN 1994. OTHER RARE PLANTS AT THIS SITE INCLUDE CALAMOGROSTIS OPHITIDUS, ARCTOSTAPHYLOS MONTANA, AND CALOCHORTUS UMBELLATUS.
Owner/Manager: MARIN MWD

Occurrence No. 6 Map Index:28958 —Dates Last Seen— Lat/Long: 37°58'40" / 122°38'22" Township: 99X
Occ Rank: Good Element: 1994-05-31 UTM: Zone-10 N4203199 E531662 Range: 99X
Origin: Natural/Native occurrence Site: 1994-05-31 Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
Trend: Unknown Area: 9.5 ac Elevation: 1350 ft
Main Source: FOLLETTE, W. 1994 (OBS)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: ALONG PINE MOUNTAIN TRUCK ROAD, BETWEEN PINE MOUNTAIN AND HAPERSBERGER POINT.
—Comments—
Distribution: MAPPED ALONG THE EAST SIDE OF THE ROAD, JUST SOUTH OF TRAIL TO PINE MOUNTAIN.
Ecological: SERPENTINE RIDGE TOP, SLOPING DOWN TOWARDS THE EAST. OPEN CHAPARRAL WITH CEANOTHUS JEPSONII, QUERCUS DURATA, ERIODICTYON CALIFORNICUM, ADENOSTOMA FASCICULATUM, CALYSTEGIA COLLINA, AND CLAYTONIA GYPSOPHYLLOIDES.
Threat: POSSIBLE TRAMPLING BY HIKERS AND BIKES. UNKNOWN EFFECTS BY MMWD FUEL REDUCTION PLANS.
General: SEVERAL HUNDRED PLANTS OBSERVED IN 1994 BY FOLLETT. THIS SITE WAS ALSO NOTED IN 1990 REPORT BY C. PATTERSON. OTHER RARE PLANTS AT THIS SITE INCLUDE CALAMOGROSTIS OPHITIDUS, ARCTOSTAPHYLOS MONTANA, AND CALOCHORTUS UMBELLATUS.
Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

NAVARRETIA ROSULATA (cont.)			
MARIN COUNTY NAVARRETIA			
Element Code: PDPLMOC020			
List Status		NDDB Element Ranks	
Federal: None		Global: G2?	
State: None		State: S2?	
Other Lists		CNPS List: 1B	
		R-E-D Code: 2-2-3	

Occurrence No. 7 Map Index:28954 —Dates Last Seen— Lat/Long: 37°58'29" / 122°38'50" Township: 99X
 Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4202852 E530978 Range: 99X
 Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 44.4 ac Elevation: 1600 ft
 Main Source: PATTERSON, C. 1990 (LIT)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: SOUTHEAST SLOPE OF PINE MOUNTAIN.
 Comments:
 Distribution:
 Ecological: GROWING ON SERPENTINE SOIL.
 Threat:
 General: THE MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.
 Owner/Manager: MARIN MWD

Occurrence No. 8 Map Index:28959 —Dates Last Seen— Lat/Long: 37°59'10" / 122°38'00" Township: 99X
 Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4204137 E532192 Range: 99X
 Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 4.9 ac Elevation: 1000 ft
 Main Source: PATTERSON, C. 1990 (LIT)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: ALONG ROAD ON RIDGE BETWEEN UPPER SAN ANSELMO CREEK AND CASCADE CREEK, 0.7 MILE SOUTHWEST OF WHITE HILL.
 Comments:
 Distribution:
 Ecological: GROWING ON SERPENTINE SOILS.
 Threat:
 General: THE MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.
 Owner/Manager: MARIN MWD

Occurrence No. 9 Map Index:28953 —Dates Last Seen— Lat/Long: 37°59'08" / 122°38'54" Township: 99X
 Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4204071 E530876 Range: 99X
 Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 10.1 ac Elevation: 1450 ft
 Main Source: PATTERSON, C. 1990 (LIT)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: PINE MOUNTAIN TRUCK TRAIL, ABOUT 0.6 MILE NORTH OF PINE MOUNTAIN.
 Comments:
 Distribution: MAPPED ON THE WEST SIDE OF THE ROAD, JUST NORTH OF CASCADE CANYON FIRE ROAD.
 Ecological: GROWING ON SERPENTINE SOILS.
 Threat:
 General: THE MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.
 Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

NAVARRETIA ROSULATA (cont.)			
MARIN COUNTY NAVARRETIA			
Element Code: PDPLMOCOZO	—List Status—	—NDDB Element Ranks—	—Other Lists—
	Federal: None	Global: G2?	CNPS List: 1B
	State: None	State: S2?	R-E-D Code: 2-2-3

Occurrence No. 10 Map Index:28952 —Dates Last Seen— Lat/Long: 37°59'52" / 122°39'40" Township: 99X
 Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4205405 E529744 Range: 99X
 Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 43.9 ac Elevation: 1200 ft
 Main Source: PATTERSON, C. 1990 (LIT)
 Quad Summary: BOLINAS (3712286/467B)*, SAN GERONIMO (3812216/484C)
 County Summary: MARIN
 SNA Summary:
 Location: NORTHEAST OF KENT LAKE AND EAST OF GREEN HILL BETWEEN PINE MOUNTAIN TRUCK TRAIL AND OF CARSON CREEK.
 —Comments—
 Distribution: THREE COLONIES MAPPED ALONG THE SOUTH SIDE OF THE TRUCK TRAIL AND 2 COLONIES MAPPED MID-WAY BETWEEN TRUCK TRAIL AND CREEK.
 Ecological: GROWING ON SERPENTINE SOILS.
 Threat:
 General: THE MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.
 Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CEANOTHUS MASONII

MASON'S CEANOTHUS

Element Code: PDRHA040F6

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G1	CNPS List: 1B
State: Rare	State: S1.3	R-E-D Code: 3-2-3

—Habitat Associations—

General: CHAPARRAL. ENDEMIC TO MARIN COUNTY.

Micro: SERPENTINE RIDGES OR SLOPES IN CHAPARRAL OR TRANSITION ZONE. 180-460M.

Occurrence No. 1 Map Index:08283 —Dates Last Seen— Lat/Long: 37°56'52" / 122°40'04" Township: 99X
 Occ Rank: Good Element: 1986-02-XX UTM: Zone-10 N4199869 E529177 Range: 99X
 Origin: Natural/Native occurrence Site: 1986-02-XX Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: M
 Trend: Unknown Area: 61.9 ac Elevation: 1500 ft
 Main Source: MCMINN, H. 1942 (LIT)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary: Bolinas Ridge Southeast
 Location: EAST END OF BOLINAS RIDGE. ALONG TRAIL ON DRY RIDGE CREST NEAR ALPINE SUMMIT.
 —Comments—
 Distribution:
 Ecological: DRY RIDGE CREST IN CHAPARRAL. ASSOCIATED WITH CEANOTHUS GLORIOSUS VAR EXALTATUS; SOME INDIVIDUALS APPEAR INTERMEDIATE. SITE LAST BURNED IN 1945.
 Threat: SOME FIRE ROADS CUT THROUGH POPULATIONS.
 General: THREE MAIN POPULATIONS WITH 20-30 PLANTS EACH AND SCATTERED SMALLER POPULATIONS IN BETWEEN.
 Owner/Manager: NPS-GGNRA, MMWD

Occurrence No. 3 Map Index:26246 —Dates Last Seen— Lat/Long: 37°57'51" / 122°37'50" Township: 01N
 Occ Rank: Fair Element: 1991-10-27 UTM: Zone-10 N4201690 E532457 Range: 07W
 Origin: Natural/Native occurrence Site: 1991-10-27 Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 80 meters Elevation: 800 ft
 Main Source: ALLEN, R. 1991 (OBS)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: LIBERTY GULCH, ALONG OLD SLED TRAIL.
 —Comments—
 Distribution: AT TOP OF ROAD CUT ABOVE BOLINAS-FAIRFIELD ROAD AT ROAD MARKER 5.83 MI.
 Ecological: S-FACING SLOPE ABOVE CREEK. WITH QUERCUS DURATA, Q. WISLIZENII FRUTESCENS, ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS MONTANA, PICKERINGIA MONTANA, HETEROMELES ARBUTIFOLIA, IRIS DOUGLASIANA MAJOR, & CEANOTHUS RAMULOSUS.
 Threat: ROAD WIDENING AND TRAIL WORK COULD THREATEN.
 General: 1 PLANT SEEN IN 1991.
 Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

HORKELIA TENUILOBA

THIN-LOBED HORKELIA

Element Code: PDROS0W0E0

—List Status—

Federal: None

State: None

—NDDB Element Ranks—

Global: G2

State: S2.2

—Other Lists—

CNPS List: 1B

R-E-D Code: 2-2-3

—Habitat Associations—

General: COASTAL SCRUB, CHAPARRAL.

Micro: SANDY SOILS; MESIC OPENINGS. 45-500M.

Occurrence No. 5

Map Index: 28955

—Dates Last Seen—

Lat/Long: 37°58'35" / 122°38'18"

Township: 02N

Occ Rank: Unknown

Element: 1990-08-XX

UTM: Zone-10 N4203062 E531757

Range: 08W

Origin: Natural/Native occurrence

Site: 1990-08-XX

Precision: NON-SPECIFIC

Section: XX Qtr XX

Presence: Presumed Extant

Symbol Type: POLYGON

Meridian: M

Trend: Unknown

Area: 19.5 ac

Elevation: 1300 ft

Main Source: PATTERSON, C. 1990 (LIT)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: ABOUT 0.7 MILE ESE OF PINE MOUNTAIN, ALONG PINE MOUNTAIN TRUCK TRAIL.

—Comments—

Distribution: TWO COLONIES MAPPED ALONG THE ROAD, JUST NORTH OF PINE MOUNTAIN TUNNEL.

Ecological:

Threat:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON "SENSITIVE PLANT SURVEY OF THE MARIN MUNICIPAL WATER DISTRICT."

Owner/Manager: MARIN MWD

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CORDYLANTHUS MARITIMUS SSP PALUSTRIS

POINT REYES BIRD'S-BEAK
Element Code: PDSCR0J0C3

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G3T2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 2-2-2

—Habitat Associations—

General: COASTAL SALT MARSH.

Micro: USUALLY IN COASTAL SALT MARSH WITH SALICORNIA, DISTICHLIS, JAUMEA, SPARTINA, ETC. 0-15M.

Occurrence No. 1	Map Index:08271	—Dates Last Seen—	Lat/Long: 37°54'45" / 122°40'36"	Township: 99X
Occ Rank: Unknown		Element: 1984-06-03	UTM: Zone-10 N4195976 E528411	Range: 99X
Origin: Natural/Native occurrence		Site: 1984-06-03	Precision: SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: X
Trend: Unknown			Area: 1.5 ac	Elevation: 5 ft
Main Source: ALLEN, R. 1984 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary:				
SNA Summary: Bolinas Lagoon				
Location: NORTH SIDE OF KENT ISLAND, ABOUT 2.7 MILES ENE OF BOLINAS POINT, BOLINAS LAGOON.				
—Comments—				
Distribution: INNER EDGE OF MARSH, ABOUT 100 FEET WEST OF LONE MONTEREY CYPRESS.				
Ecological: AT INNER EDGE OF SALTMARSH, WITH LIMONIUM CALIFORNICUM, PLANTAGO JUNCOIDES, FRANKENIA SALINA, DISTICHLIS				
SPICATA, SALICORNIA VIRGINICA.				
Threat:				
General: MORE THAN 100 PLANTS IN 1984.				
Owner/Manager: MRN COUNTY				

Occurrence No. 5	Map Index:08311	—Dates Last Seen—	Lat/Long: 37°54'07" / 122°38'42"	Township: 99X
Occ Rank: Unknown		Element: 1945-08-05	UTM: Zone-10 N4194794 E531200	Range: 99X
Origin: Natural/Native occurrence		Site: 1945-08-05	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 100 ft
Main Source: HOWELL #21370 CAS & JEPS (HERB)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: STINSON BEACH.				
—Comments—				
Distribution:				
Ecological: SALTMARSHES.				
Threat:				
General:				
Owner/Manager: UNKNOWN				

Occurrence No. 33	Map Index:08252	—Dates Last Seen—	Lat/Long: 37°55'22" / 122°41'20"	Township: 99X
Occ Rank: Unknown		Element: 1977-06-08	UTM: Zone-10 N4197087 E527343	Range: 99X
Origin: Natural/Native occurrence		Site: 1977-06-08	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1/5 mile	Elevation: 2 ft
Main Source: DAVY, D. 1977 (OBS)				
Quad Summary: BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary: Bolinas Lagoon				
Location: BOLINAS LAGOON, 300 YARDS NORTH OF PINE GULCH CREEK.				
—Comments—				
Distribution:				
Ecological: IN SALICORNIA MARSH, IN FENCED COW PASTURE AT EDGE OF JUNCUS ECOTONE, WITH TRIGLOCHIN, FRANKENIA AND CUSCUTA				
(ON SALICORNIA).				
Threat: POSSIBLY HUMAN TRAMPLING.				
General: 10 PLANTS.				
Owner/Manager: PVT				

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

DIRCA OCCIDENTALIS

WESTERN LEATHERWOOD

Element Code: PDTHY03010

-----List Status-----

Federal: None

State: None

-----NDDB Element Ranks-----

Global: G2G3

State: S2S3

-----Other Lists-----

CNPS List: 1B

R-E-D Code: 2-2-3

-----Habitat Associations-----

General: BROADLEAFED UPLAND FOREST, CHAPARRAL, CLOSED-CONE CONIF FOR, CISMONTANE WDLND, N COAST CONIF FOR, RIP FOR, RIP WDLND.
Micro: ON BRUSHY SLOPES, MESIC SITES; MOSTLY IN MIXED EVERGREEN & FOOTHILL WOODLAND COMMUNITIES. 30-550M.

Occurrence No. 26 Map Index:28675 ---Dates Last Seen--- Lat/Long: 37°56'28" / 122°38'45" Township: 99X
Occ Rank: Unknown Element: 1990-XX-XX UTM: Zone-10 N4199140 E531118 Range: 99X
Origin: Natural/Native occurrence Site: 1990-XX-XX Precision: SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 80 meters Elevation: 600 ft
Main Source: PATTERSON, C. 1990 (LIT)
Quad Summary: BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: NE SLOPE OF BOLINAS RIDGE WEST OF ALPINE LAKE, SOUTH SIDES OF LAGUNITAS CREEK ABOUT 0.45 MILE WEST OF ALPINE DAM.

-----Comments-----

Distribution:
Ecological:
Threat:
General: A FEW DOZEN PLANTS OBSERVED BY PATTERSON IN 1988-1990.
Owner/Manager: MARIN MWD

Occurrence No. 29 Map Index:08246 ---Dates Last Seen--- Lat/Long: 38°00'38" / 122°42'02" Township: 99X
Occ Rank: Unknown Element: 1918-09-04 UTM: Zone-10 N4206822 E526287 Range: 99X
Origin: Natural/Native occurrence Site: 1918-09-04 Precision: NON-SPECIFIC Section: XX Qtr XX
Presence: Presumed Extant Symbol Type: POINT Meridian: M
Trend: Unknown Radius: 1 mile Elevation: 240 ft
Main Source: MERRIAM SN CAS #507537 (HERB)
Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)
County Summary: MARIN
SNA Summary:
Location: LAGUNITAS.

-----Comments-----

Distribution:
Ecological:
Threat:
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1918 COLLECTION BY MERRIAM.
Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

CAREX LYNGBYEI

LYNGBYE'S SEDGE

Element Code: PMCYP037Y0

——List Status——

Federal: None

State: None

——NDDB Element Ranks——

Global: G5

State: S2.2

——Other Lists——

CNPS List: 2

R-E-D Code: 2-2-1

——Habitat Associations——

General: MARSHES AND SWAMPS (BRACKISH OR FRESHWATER).

Micro: OM.

Occurrence No. 16

Map Index:08311

——Dates Last Seen——

Lat/Long: 37°54'07" / 122°38'42"

Township: 99X

Occ Rank: Unknown

Element: 1927-04-24

UTM: Zone-10 N4194794 E531200

Range: 99X

Origin: Natural/Native occurrence

Site: 1927-04-24

Precision: NON-SPECIFIC

Section: XX Qtr XX

Presence: Presumed Extant

Symbol Type: POINT

Meridian: M

Trend: Unknown

Radius: 1 mile

Elevation: 100 ft

Main Source: WOLF, C. #370 RSA #15261 (HERB)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary:

Location: STINSON BEACH.

——Comments——

Distribution:

Ecological:

Threat:

General: NEEDS FIELDWORK, ONLY SOURCE OF INFORMATION IS 1927 COLLECTION BY WOLF.

Owner/Manager: UNKNOWN

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

FRITILLARIA AFFINIS VAR TRISTULIS

MARIN CHECKER LILY

Element Code: PML10V0P1

—List Status—	—NDDB Element Ranks—	—Other Lists—
Federal: None	Global: G5T1	CNPS List: 1B
State: None	State: S1.1	R-E-D Code: 3-3-3

—Habitat Associations—

General: COASTAL BLUFF SCRUB, COASTAL SCRUB, COASTAL PRAIRIE. ENDEMIC TO MARIN COUNTY.

Micro: OCCURRENCES REPORTED FROM CANYONS AND RIPARIAN AREAS AS WELL AS ROCK OUTCROPS; OFTEN ON SERPENTINE. 30-300M.

Occurrence No. 1 Map Index:28705 —Dates Last Seen— Lat/Long: 37°53'31" / 122°37'18" Township: 01N
 Occ Rank: Unknown Element: 1963-03-10 UTM: Zone-10 N4193695 E533264 Range: 07W
 Origin: Natural/Native occurrence Site: 1963-03-10 Precision: NON-SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 3/5 mile Elevation: 600 ft
 Main Source: LLOYD #2126 JEPS #77812 (HERB)
 Quad Summary: SAN RAFAEL (3712285/467A)*, BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: 1.5 MILES UP ROAD TO MT. TAMALPAIS FROM HIGHWAY 1.
 —Comments—
 Distribution: MAPPED ALONG PANORAMIC HIGHWAY EAST FROM STINSON BEACH.
 Ecological:
 Threat:
 General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1963 COLLECTION BY LLOYD. ORIG LABEL 'F. LANCEOLATA' ANNT TO 'F. AFFINIS'. NOT FURTHER ANNOTATED.
 Owner/Manager: NPS-GGNRA

Occurrence No. 2 Map Index:08297 —Dates Last Seen— Lat/Long: 37°56'31" / 122°39'30" Township: 99X
 Occ Rank: Unknown Element: 1951-04-13 UTM: Zone-10 N4199223 E530021 Range: 99X
 Origin: Natural/Native occurrence Site: 1951-04-13 Precision: NON-SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POINT Meridian: M
 Trend: Unknown Radius: 1 mile Elevation: 1000 ft
 Main Source: BACIGALUPI & BELL #3264 JEPS (HERB)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: ALONG BOLINAS ROAD ABOVE ALPINE DAM.
 —Comments—
 Distribution: MAPPED WEST OF DAM IN VICINITY OF BOLINAS RIDGE ROAD.
 Ecological: ON ROCK WITH ROMANZOFFIA.
 Threat:
 General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1951 COLLECTION BY BACIGALUPI AND BELL. ORIG LABEL ANNT 'F. LANCEOLATA' FURTHER ANNT TO 'F. AFFINIS'. NOT FURTHER ANNOTATED.
 Owner/Manager: UNKNOWN

Occurrence No. 16 Map Index:42524 —Dates Last Seen— Lat/Long: 37°54'09" / 122°43'14" Township: 99X
 Occ Rank: Fair Element: 1996-03-22 UTM: Zone-10 N4194832 E524556 Range: 99X
 Origin: Natural/Native occurrence Site: 1996-03-22 Precision: SPECIFIC Section: XX Qtr XX
 Presence: Presumed Extant Symbol Type: POLYGON Meridian: X
 Trend: Unknown Area: 1.8 ac Elevation: 100 ft
 Main Source: SOOST, B. 1996 (OBS)
 Quad Summary: BOLINAS (3712286/467B)
 County Summary: MARIN
 SNA Summary:
 Location: BOLINAS POINT, ABOUT 1.2 MILES SOUTH OF BOLINAS MILITARY RESERVATION, SOUTH OF POINT REYES NATIONAL SEASHORE.
 —Comments—
 Distribution: ABOUT 700 METERS SOUTHEAST OF "LOOP" END OF OLD ROAD THAT RUNS FROM MESA ROAD ENTRANCE OF COMMONWEALTH AND MCI TOWARD SW AND OCEAN BLUFFS.
 Ecological: NON-NATIVE GRASSES. GROWING WITH CAMISSONIA OVATA, RANUNCULUS CALIFORNICUS, IRIS DOUGLASIANA, PLANTAGOLANCEOLATA, FRITILLARIA AFFINIS VAR. AFFINIS AND SCATTERED BACCHARIS PILULARIS. 10-20 %SLOPE.
 Threat: CATTLE GRAZING - MANY VEGETATIVE LEAVES ARE CROPPED.
 General: 2 FLOWERING PLANTS OBSERVED IN 1996. MANY VEGETATIVE PLANTS PRESENT, BUT UNABLE TO DISTINGUISH VAR. AFFINIS FROM VAR. TRISTULIS.
 Owner/Manager: PVT?

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

ALOPECURUS AEQUALIS VAR SONOMENSIS			
SONOMA ALOPECURUS			
Element Code: PMPOA07012			
List Status		NDDB Element Ranks	
Federal: Endangered		Global: GST1	
State: None		State: S1.1	
Other Lists		CNPS List: 1B	
		R-E-D Code: 3-3-3	

Habitat Associations

General: FRESHWATER MARSHES AND SWAMPS, RIPARIAN SCRUB. KNOWN FROM A FEW OCCURRENCES IN SONOMA AND MARIN COUNTIES.

Micro: WET AREAS, MARSHES, AND RIPARIAN BANKS WITH OTHER WETLAND SPECIES. 5-360M.

Occurrence No. 14 Map Index:08198 Dates Last Seen Lat/Long: 37°55'37" / 122°43'37" Township: 99X

Occ Rank: Fair Element: 1991-07-06 UTM: Zone-10 N4197539 E523998 Range: 99X

Origin: Natural/Native occurrence Site: 1996-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX

Presence: Presumed Extant Symbol Type: POINT Meridian: M

Trend: Decreasing Radius: 1/5 mile Elevation: 320 ft

Main Source: FOWLER, R. 1983 (OBS)

Quad Summary: BOLINAS (3712286/467B)

County Summary: MARIN

SNA Summary: Stewart Point

Location: MESA ROAD ABOUT 3.2 MI FROM JUNCTION WITH OLEMA-BOLINAS ROAD, BOLINAS.

Comments

Distribution: ALONG BOTH SIDES OF THE ROAD IN DRAINAGE NEXT TO COAST GUARD BUILDING.

Ecological: RIPARIAN STREAMBED COMMUNITY ON WET BANKS. ASSOCIATED WITH OENANTHE SARMENTOSA, CYPERUS, JUNCUS, SALIX, TYPHA LATIFOLIA, GLYCERIA, RORIPPA NASTURTIUM VAR. AQUATICUM, POLYGONUM MONSPELIENSIS, LYTHRUM HYSSOPIFOLIUM, VERONICA, AND HOLCUS.

Threat: EXTENSIVE CATTLE GRAZING=PLANTS EATEN TO GROUND/TRAMPLED; COMPLETE GRAZING EXCLUSION=HEAVY COMPETITION AND FEW PLANTS.

General: <50 PLANTS IN 1983, 34 IN 1984, 75-100 IN 1987, 1 IN 1988, 0 IN 1990. AREA ABOVE ROAD FENCED FROM 1986-1990 (POP DROPPED TO 0). MANAGED GRAZING IN 1990-1991, 14 PLANTS IN 1991, 0 IN 1996.

Owner/Manager: NPS-POINT REYES NS

Full Condensed Report - Multiple Records per Page
Quad: Bolinas

PLEUROPOGON HOOVERIANUS
NORTH COAST SEMAPHORE GRASS
Element Code: PMPOA7Y031

List Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G1	CNPS List: 1B
State: Candidate	State: S1.1	R-E-D Code: 3-3-3

Habitat Associations

General: BROADLEAFED UPLAND FOREST, MEADOWS AND SEEPS, NORTH COAST CONIFEROUS FOREST.

Micro: WET GRASSY, USUALLY SHADY AREAS, SOMETIMES FRESHWATER MARSH; ASSOCIATED WITH FOREST ENVIRONMENTS; 10-1150M.

Occurrence No. 20	Map Index:08246	—Dates Last Seen—	Lat/Long: 38°00'38" / 122°42'02"	Township: 99X
Occ Rank: Unknown		Element: 1916-05-07	UTM: Zone-10 N4206822 E526287	Range: 99X
Origin: Natural/Native occurrence		Site: 1916-05-07	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Possibly Extirpated			Symbol Type: POINT	Meridian: M
Trend: Unknown			Radius: 1 mile	Elevation: 240 ft
Main Source: SMITH, L. SN AHUC (HERB)				
Quad Summary: SAN GERONIMO (3812216/484C)*, BOLINAS (3712286/467B)				
County Summary: MARIN				
SNA Summary:				
Location: LAGUNITAS.				
Comments				
Distribution: MAPPED AT THE TOWN OF LAGUNITAS.				
Ecological:				
Threat:				
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1916 COLLECTION BY SMITH; NEEDS FIELDWORK.				
Owner/Manager: UNKNOWN				